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Eight Routes

To the 

Klondyke.

By WALTER MOBERLY, C.E.



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EIGHT ROUTES

— TO —

The Klondyke.

WITH TABLES OF DISTANCES, COST OF OUTFITS, MAP OF
ROUTES, AND OTHER INFORMATION

COMPILED AND EDITED BY

WALTER MOBERLY, C.E.

For sixteen years engaged in exploratory and engineering work on the Pacific Coast Mountain
ranges for the Imperial and Dominion Governments, and the Canadian
Pacific Railway.

PUBLISHED BY

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WINNIPEG, MANITOBA.

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Introductory.

Since the first great Californian gold excitement of '49, there have been a series of rich "strikes," generally in the most unexpected quarters of the world, nearly always in the most remote, and never at more than one place at a time. The Californian discoveries were succeeded a little later by even richer discoveries in Australia, these again by those in the Caribou district of British Columbia, while quite recently the attention of the world was attracted to the marvellous free-milling propositions of the Transvaal, and still more recently to the sensational discoveries of Western Australia. Each of these districts has in turn been the great gold producer of the day, though under very different conditions. California's, Australia's and the Caribou's rich days were the results of placer diggings, while the Rand, which speedily became the greatest producing gold field in the world, as well as Western Australia, the scene of a still later activity, were only free-milling gold fields, where individual miners with nothing but their pluck and their muscle had no opportunity of acquiring a fortune excepting in the speculative occupation of "prospecting." Indeed, since the days of the diggings on the Caribou, there has been really no great discovery of a field where any man with a few supplies has the opportunity of delving his fortune out of the soil in perhaps a few months, until the most recent discovery of all—and the one that promises to be also the greatest—the rich placer deposits on the Upper Yukon, and its tributaries. Former discoveries have been rich, and also inaccessible, but this latest one is apparently the richest, as it is the most inaccessible of all. It appears to be the fate of all rich gold fields that they shall be attended by many natural obstacles in the way of climate and situation. It is probably just as well for the adventurous men who are willing to face these obstacles that it is so, for were such enormous wealth as the deposits of the Klondyke to be situated within easy reach, the rush thither would be so overwhelming that a very small percentage of the crowd would have any chance of securing a prize. Under the present conditions the number of miners in the Klondyke must be enormously diminished by the difficulty and expense of getting there, and therefore these very obstacles become an advantage to those who have the pluck and the endurance necessary to reach the remote region. At the same time, though only comparatively a few can go, all the world is intensely interested, and everyone wants to know more about this extraordinary source of incalculable wealth in the inhospitable regions of Arctic America ; and,

therefore a handbook such as this will be welcome to just as many people who have no idea of going there, as to those who are perhaps already making preparations to undertake the journey next spring.

This little pamphlet on the Klondyke has been compiled from the most reliable sources of information extant. It is, as will be seen, edited by a man who has had more active personal experience of exploration and travel in the Northern ranges of the Rocky Mountains than any man living, and, therefore, we have no hesitation in claiming for it a greater degree of reliability than any publication that has as yet been issued on the subject. Mr. Moberly has had at his command all the available information concerning this little explored region, and this, added to his own personal knowledge of the subject, has enabled him to produce a most reliable guide to any one contemplating a journey to the Klondyke. The object has been not so much to add testimony to the already overwhelming evidence that the Klondyke is the richest gold field of the world, as to furnish definite and reliable information of the kind that will be of most value to all who have made up their minds to go there, or are still discussing within themselves the advisability of undertaking the adventure.

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Eight Routes to the Klondyke.

Up to the present there are only two or three regularly travelled routes to the Yukon placer fields, and all of them to a greater or less extent within the United States territory, owing to the anomalous direction of the undefined international boundary line from Mt. St. Elias southward along the Pacific Coast. These are, of course, via the Pacific Ocean; but for half a century or more the hardy and indomitable servants of the Hudson's Bay Company have had regular routes of travel across the mountains from the East. Our object is to furnish a concise and accurate description of every known route. These descriptions have been compiled from information gathered from many sources, but principally from ex-officials and employees of the Hudson's Bay Company, old prospectors and traders, from the official reports of Government explorers and surveyers and from missionaries, who have spent many years in these almost unknown regions.

We find then that the gold seeker has his choice of eight different routes by which he may reach the Klondyke, namely:

1. By St. Michael's and the Yukon river.
2. By Juneau to Dyea and the Chilkoot or White Pass.
3. By the Stickeen river, Telegraph creek and Teslin lake.
4. Takou inlet.
5. Edmonton, the Yellow Head Pass and Giscome Portage.
6. Revelstoke and Cariboo.
7. Edmonton and the Liard river.
8. The McKenzie and Porcupine rivers.

The starting points are Victoria, Revelstoke or Edmonton, all on the Canadian Pacific Railway; we mention Victoria in preference to the American ports to the south because by outfitting at that place the traveller will avoid having to pay duty on the goods he takes to the Yukon country. Winnipeg might almost be called the starting point for all but the Pacific Coast routes, as on account of it being the distributing point for the whole North-west, much that would be required could be purchased to better advantage at that point than at the smaller western towns.

However this question will be more fully discussed under the heading of "Where to outfit."

Before entering upon a detailed description of each route we might say that the gold-seeker should be guided in his choice of road by several important considerations, the most important being the state of his finances. He should also consider which route is most suitable to travel at the season of the year when he proposes to start, also whether he intends to make direct for the Klondyke, or whether he wishes to travel through an auriferous country and prospect by the way.

Another question worthy of consideration is the size of the party, and whether the members of it are experienced in mountain travel. A "tender-

foot" party without an experienced guide should not think of attempting any but the Pacific Coast routes. "Physical fitness" is also a matter to be taken into account in coming to a decision on this important question.

For the sake of convenience in making comparisons as to distances and cost by these different ways, we have taken Winnipeg as a basis on account of its central position on the Canadian Pacific Railway—a comparison of distance and cost by each route will be found further on.

The St. Michael's Route.

This is the luxurious expensive way of reaching the gold fields—railroad and steamboats all the way—but until many more steamers are plying from Victoria it will be but few who can avail themselves of it. The great drawback, and to many an insurmountable one, is that the steamship companies will not carry more than 150 lbs. of baggage for each person—the reason of this being that they do a trading business of which they have practically a monopoly.

Thus a miner going to St. Michael's must have a long purse to enable him to buy his supplies when he reaches his destination. He also runs the risk of arriving at a time when there is a shortage of "grub" and famine prices are prevailing. Should this route be selected a passage would have to be booked some time in advance.

This route is named after an o'd Russian Fort on an island in the Pacific, 80 miles outside the mouth of the Yukon River. Travellers by this route take the train at Winnipeg and go through to Victoria 1,600 miles, taking there a steamer for Unalaska, or Dutch Harbor, on one of the Aleutian Islands, 2,000 miles from Victoria. There the steamer enters Behring Sea and continues in its icy waters for 750 miles to St. Michael's, where the traveller takes a flat bottomed river steamer, and after a passage of 80 miles in North Sound, enters the mouth of the Yukon, up which he is carried on the steamer 1,800 miles to Dawson City, over 6,200 miles from Winnipeg by this circuitous route. The cost of passage with berths and meals between Winnipeg and Dawson City is \$250, at the very lowest estimate, being \$200 from Victoria. It is plain that this is the most convenient route, but for all it is by no means a desirable one. As the Yukon mouth is choked by drift ice till July, and as ice sets in again in September, two round trips are all that can be depended on in one season. Besides this, landing at St. Michael's is often difficult and sometimes impossible, while the passage of 80 miles from there to the Yukon on a river steamer is by all counted a dangerous trip. With the exception of the portion on the high seas and the last 175 miles or so on the Yukon, this route lies entirely within United States territory.

The Dyea Route.

To date this is the most popular route if the number of people passing over it is taken as indicating popularity. Boarding a steamer at Victoria the traveller proceeds to Juneau, Alaska, some 900 miles, changing there to a smaller steamer and continuing the journey 100 miles further on to Dyea, at the head of Dyea or Taiya Inlet. From this place to the headwaters of the Lewis, the Western branch of the Yukon, the distance is only 23 miles, via Chilkoot Pass, or some 50 miles via White Pass, and of these two the Chilkoot has been the principal route of travel. The summit of this pass is just about 3,500 feet over tide-water, rather less than 16 miles distant, and 1,378 feet over Lake Linderman, 8 miles distant, to the northeast. All travellers agree as to the main points when describing this mountain pass. The following description of the journey is taken from a letter by L. R. McKenzie, with a party of Manitobans :

"The first six miles travelled were along a river, with the road running from one bank to the other and a very hard path to get along; sand and boulders, with from six inches to two feet of water, with a very swift current. The balance of the distance to the canyon is over boulders with fair footing. This is the end of the wagon road, and you then take to the woods and begin the mountain climb, going up and up until the river looks like a silver thread below. After leaving Sheep Camp we began to reach a few of the "high spots" right up in the clouds. For one thousand feet we had to stick "our toe nails in for all we were worth," and take steps from four to six inches. I will not undertake to say how deep the snow is. When the top was reached the descent begun and if one lost his footing he was liable to go several hundred feet before recovering his equilibrium. There are six miles of this snow travelling. It is a hard looking path. The last six miles are not so bad, but as rough as one wants. If you see anyone intending to come to the Yukon by this route tell them if they cannot pay for transportation on the portage "don't come."

This gives a clear idea of what the Chilkoot pass is like, and it is well to state that the track used by travellers is some seven miles longer than the one measured by Ogilvie, being more winding for the sake of somewhat easier grades and better footholds.

But short as this pass is, it is a most expensive piece of road for the miner having goods to freight across. The Chilkoot Indians are the only parties packing supplies over the pass. They are a wealthy tribe, independent and even insolent. Their present rate from Dyea to Linderman is 25 cents a pound, while it is feared the price may go higher. Now, if a miner goes fairly well supplied he must take with him at least 1000 pounds of goods, and paying 25 cents a pound means a charge of \$250.00 for freighting his goods a distance of 23 to 30 miles.

When Linderman is reached the traveller must either purchase a boat, there being a small sawmill and boat builders at that place, or go to work and fell timber, rip it into boards and build his own boat. A boat capable of carrying two or three men and their supplies can be purchased here for \$75, but a great many whose purses are not overstocked will doubtless continue to

find the material and construct the boat themselves. In this connection it might be said that timber for boatbuilding is getting scarce in the immediate vicinity of the lake.

The boat being secured, it is comparatively plain sailing to the land of gold—to Dawson, 552.64 miles further on. In all this distance only two or three portages have to be made. The first one is across the neck of land separating Lake Linderman and Lake Bennett. A stream connects them, but is too shallow for navigation at most seasons. The second portage is through the canyon $\frac{5}{8}$ of a mile long, and two miles further on past the White Horse Rapids $\frac{3}{8}$ of a mile long. The canyon may be run at high water, but the White Horse Rapids are unsafe for boats. The miners do their portaging on the west side of the river, and have made the place convenient for that purpose. These dangerous places are some 35 or 40 miles below the foot of Marsh Lake. The other rapids in the way are Five Finger Rapids and the Rink Rapids, close together, and about 150 miles below the foot of Lake Lebarge. But neither of these are considered dangerous by Mr. Ogilvie; ordinary watchfulness being all that is required to run them with safety. The former are formed by several islands in the river, and the latter by a barrier of rocks extending into the middle of the river from the western shore. The only care here is to hug the eastern shore while passing.

THE WHITE PASS.

So named by Mr. Ogilvie in honor of the late Hon. Thos. White, then Minister of the Interior. It follows the same general direction through the coast ranges as the Chilkoot, but a few miles further south and east. It commences about two miles south from Dyea and follows the Skagway river to its source and then down another stream emptying into a western arm of Tagish Lake. From here is a clear, unbroken navigation, connecting with the Chilkoot route at Lake Nares, between Lake Bennett and Marsh Lake. This pass is about 50 miles long and no where as steep or rough as the other, in proof of which the summit of White Pass is by Mr. Ogilvie stated to be only some 2,500 feet over tidewater, or about 1,000 feet lower than Chilkoot Pass, while double the length, giving apparently an easy slope right through. Some work has been done on the road over the White Pass, and it would now be a fairly practicable road for pack animals when frost is in the ground, although then there is great danger from the slippiness of the narrow path round the mountains. In wet weather, horses and their loads frequently go over the edge and that is the last of them; until this road is improved it cannot be classed as practicable.

Should this route be taken it would be advisable to take pack animals by steamboat from Victoria, and a good supply of horse shoes and nails should be included in the outfit for this journey. One important point to remember when outfitting is that goods are taken from Dyea in bond to the international boundary and that therefore the packages cannot be opened en route so an assortment of provisions should be taken in separate packages to last the traveller over this part of the journey. Information as to quantities for this purpose can be had from the outfitters at Victoria.

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The proper time to leave Winnipeg, for parties intending to take either the Dyea or the White Pass routes, is about the middle of March. They could then be over the coast range and have their boats built, on the lakes, by the time the ice breaks up and would then reach the diggings in June.

River distances on the Chilkoot route are figured thus: Total length of river traversed to Dawson City, 452 miles; total length of lakes traversed, 95 miles; total length of all rapids on route 2.7 miles; total fall in rapids, 32 feet; total fall on river route from Lake Linderman to Dawson City, about 1,300 feet—in 547 miles, or an average of less than $2\frac{1}{2}$ feet of fall to the mile.

The Stickeen River Route.

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Travelers to the Klondyke have not as yet taken this route, though possibly it is the easiest from the Pacific Coast. The Stickeen is a large river, navigable for steamers for about 150 miles from tidewater, to a place called Telegraph Creek. It enters the Pacific Ocean near Wrangell Island and is for a few miles up within United States territory, but the freedom of the river for navigation purposes is guaranteed all British subjects by treaty, so that, for all practical purposes, this may be considered an all-Canadian route. From Telegraph creek, the head of the steamboat navigation, is a distance of 150 miles to Teslin Lake. This portage of 150 miles is over a practically level abeland, indeed by explorers considered as a very flat country. An old pack trail runs from Telegraph Creek the entire distance to Teslin Lake, and another eastward to Dease Lake, the centre of the Cassiar mining region. Desiring to open this route, to relieve the congested and dangerous Dyea Pass, the British Columbia government sent an engineer to explore it early last spring. And so favorable was his report, dated July 8th, that steps were at once taken to open the route, and a force of men sent to improve the old pack trail and make it passable for freight wagons. At the same time a company was formed for building steamers to ply between Fort Wrangell and Telegraph Creek. Two of these and a large barge for freight are now being constructed and will be ready as will also the road to Teslin Lake, by the time the spring rush to the Yukon sets in, say in March next. The Canadian Pacific Railway Company intend to run first-class steamers to Fort Wrangell, and possibly construct a narrow gauge railway from Telegraph Creek to Teslin Lake.

Teslin Lake is a narrow body of water, about 150 miles long, lying in a wide valley surrounded by hills. From the north end of the lake springs the Teslin river (the miners call it Hootalinqua River) and flows northwestward in a wide sweeping valley for some 175 miles to its junction with the Lewis River,

about 32 miles below Lake Lebarge. There are no known obstructions to navigation for steamers on Teslin Lake and River, while in the Lewis, below the Teslin, the only rapids met with are the five finger and the Rink Rapids, and which even a tyro is with ordinary care able to pass in safety.

What is unquestionably in favor of this route is the fact that wheat, barley and vegetables are successfully grown at Telegraph Creek and in the vicinity, as reported by Dr. Dawson, chief of the geological survey department. Dr. Dawson went up the Stickeen in 1886, taking from Telegraph Creek to Dease Lake pack trail, and continuing on to the Pelly, down which he went to its confluence with the Lewis, where he met Mr. Ogilvie, who had come over the Chilkoot Pass. In his report Mr. Dawson expresses the opinion that vegetables might be grown throughout the entire tableland between Telegraph Creek to Teslin Lake, along the shores of the lake and down through the valley of the Teslin River. If this were done health-giving vegetable food could be guaranteed the Yukon miners, if not all the year around, at least during the greater portion of it, and at reasonable prices. In view of this it well this district will be opened up to the public by the spring season of 18

Takou Inlet Route.

This may yet become a practicable route, but as yet but little is known of it, and until more information is available it would not be wise for parties to attempt to take freight in by the Takou.

The following particulars are from Frank F. Meyers, who went through in July, 1897:

"The entrance to this inlet is ten or twelve miles south of Juneau, and navigable for the largest ocean vessel a distance of eighteen miles, to the mouth of the Takou River. This river is navigable by canoe at all stages of the water for a distance of fifty-three miles to Nahkina River, where land travel has to begin. A distance of seventy miles must be traversed before Lake Teslin—the chain of lakes which form the head waters of the Yukon can be reached by boat with comparative ease. The total distance from Juneau to Lake Teslin is 150 miles. The Yukon River is navigable for vessels of light draught except during freshets, which last about a month and usually occur in June. In going up the river in July our party found no difficulty, the shallowest water being about two feet in midchannel. The Indians who took us up the river said it is open from May to the middle of September for canoes carrying from two to four tons of freight. The wind during the summer is from the southwest, and sails were used on the canoe, which greatly assisted in working up against a five mile current. At the end of the fourth day the mouth of the Nahkina river was reached. From here we started for Lake Teslin on foot accompanied by an Indian guide and two packers. The course was up this stream until Kaun Creek was reached, which was followed four or five miles. Then we started in a northwesterly direction over a low range of mountains, forming a beautiful an

own obstructions in the Lewis, belt and the Rink Rapids safety. That wheat, bar and in the vicinity department. Telegraph Creek prospecting, but found no very encouraging prospects. On one or two small streams gold was found, but not in sufficient quantity to work. No thorough prospecting was done, as our supplies were running short. However, with the opening up of this section, so that supplies can be taken in at reasonable rates, it is believed that great things can be made by hundreds of men on the various streams drained by the Yukon, and also on the small streams which empty into the lakes. On these makes the mining season is much longer and more work could be accomplished."

...ing season of 18

The Revelstoke Route and the Yellow Head Pass Route.

The following description is written with the intention of showing how the prospector may make his way through the Great Mineral belt of British Columbia and the Headwaters of the Pelly—Yukon.

It is not claimed that there is at present any practicable route of travel through the country here described to the Klondyke, but there undoubtedly is a route to be made at comparatively small cost for pack horses and over which a railroad could be constructed which would run through the gold belt all the way. It is probable that many prospectors who have studied the gold country of the West and who are heading for the Klondyke will look to this route which offers the best chance for rich discoveries en route.

The localities where gold has so far been found in quantities and where mining is still actively followed are about Rossland—several places in the neighborhood of Fort Steel, in the country adjacent to Rock Creek on the Shmilikomeen river and its tributary, Whip-saw Creek, in the Slocan, Trout Lake, Lardeaux country, Kootenay Lake, in the big bend of the Columbia River, in Cariboo, about the Omenica and Findlay and head waters of the Peace River, in the Cassiar country, and now apparently richest of all in the Klondyke district, which embraces a distance end to end of about 1,650 miles equal to the entire length of Europe.

Between the junction of the Findlay and Peace Rivers and Klondyke is a vast extent of this mineral belt, about 900 miles in length, that has not as yet been prospected and for those going to Klondyke with pack animals this unexplored portion of the mineral belt offers a fine field for prospecting. The principal difficulty they will have to contend with will be the want of a trail for pack animals beyond the Omenica River, that is if they start from any point along the Cariboo wagon road.

For parties starting from Edmonton, if they go by the Yellow Head Pass to the Tete Jeune Cache, on the Fraser River, they will not find much difficulty between those two points, a distance of about 300 miles, as a good pack trail was opened over this line so far during the surveys for the C.P.R. in 1872-3, and a good trail was also opened from Kamloops to the Tete Jeune Cache by the valleys of the North Thompson and Albreda Rivers.

From Tete Jeune Cache to the Giscome Portage, a distance of about 100 miles would be through a timbered country, along the banks of the Fraser River, as no pack trail has as yet been opened over this portion of the route. The better and quicker way would be for the prospectors to take along with them a whip-saw, nails, etc., and construct boats at Tete Jeune Cache in which to convey their goods to Giscome Portage and drive their unloaded animals through the woods. They could thus without any great amount of difficulty provided they knew how to handle boats and to manage pack animals, reach the junction of the Findlay and the Peace Rivers, and would ensure themselves thus far an almost level route to travel. The route from Edmonton via Athabasca Landing and Peace River, which would reach the same point, viz., the fork of the Findlay and Peace, would be much rougher and more dangerous.

S. Cunningham, who has frequently travelled by the trail via Lake St. Anne, Sturgeon Lake to Dunvegan on the the Peace River, gives the distance in days as follows: Lake St. Anne to Athabasca River at the Junction of Macleod, four days; Little Smoky, four days; Sturgeon Lake, three days; Big Smoky, three days; Spirit River, three days; Dunvegan, two days.

The Athabasca has generally to be rafted or boated across, the Little Smoky is always fordable and the Big Smoky generally so. There is very little muskeg and a good deal of open country along this trail. Macleod Lake and Buck Lake across the Athabasca and Shining Bark Lake, between the Macleod and Athabasca are good fishing lakes; also Sturgeon Lake.

A route from Edmonton to Fort Macleod can also be had by an old trail through the Pine River Pass. This trail is represented as being through a very rough and broken country. From the forks of the Findlay and Peace Rivers over the only divide between Rossland and Klondyke (a distance of about 1,650 miles), is the only point on this long and nearly level route where we anticipate serious difficulty may be encountered for a railway, but as the line is in a direction parallel to all the great mountain ranges, it will, we believe, not present anything like the difficulties that the C. P. R. had to contend with either in the Rocky or Selkirk ranges. The great point to keep in view is that the route of this Northwestern thoroughfare should keep in and through the mineral belt and not deviate from the course delineated on the accompanying map. From the forks of the Findlay and Peace the route would be over a practically unexplored country to Francis Lake, but it is not believed that there would be any great difficulties to encounter. From Lake Francis to Dawson is described in the Liard Route. The following from reliable sources will give some idea of the prospects en route. In the senate committee of investigation at Ottawa in 1888, Bishop Clut said: "There is gold in the sand banks of the Peace river and in considerable quantities, but during the winter and in high water it cannot be mined. The miners make from \$18 to \$20 per day. There is copper, and one river bears the name of

the Yellow Head Pass. It is found there in great quantities. I have seen little crosses made out of it by the savages themselves when they were not able to have other material. The sulphur abounds in several places.

W. T. Fitzgerald, of Seattle, who prospected in the Ominica and Upper Peace River regions last season, says:

"We took up 2,500 acres of placer ground along the Peace River. At a depth of 18 feet we struck bed rock and found the ground to prospect \$800 to the cubic yard, and in some instances as high as \$600 were obtained. The largest results were obtained on the river bars. The gold is coarse and is what is termed barley gold with occasional nuggets worth from \$16 to \$18."

From "Vancouver World," Sept. 3rd, 1897, the personal experience of James Orr, ex-M.P.P., one of the Cariboo pioneers, is well worth hearing.

"Landing at Williams Creek in 1882, when that famous creek was in its glory as a producer, Mr. Orr became one of the owners of the Caledonia and was bookkeeper for that company. In fifteen months they took out one-half a million dollars—they took out \$6,500 from 5 (five) pans of gravel. The prize pan being \$1,680. This was in 1883. Out of the Caledonia, which was 67 feet to bed rock, the best paying dirt was about two feet on bed rock and the vein was often 150 feet wide. The "Never Sweat" was adjoining and washed up every day from 60 to 200 ozs. "Beauregard" as high as 800 ozs. a day. "New York" from 150 to 200 ozs. "Moffats" over \$800,000 taken out of 100 ft. square which was the size of the Cariboo claims. The McLean claim was next but not so rich. The "Tinker" with 300 feet of ground paid in dividends over \$700,000. The "Watty" a small claim next paid \$80,000. The "Cameron" claims next cleaned up over a \$1,000,000. The "Rabby" \$900,000. "Dead Broke," \$70,000. Below are some short but rich claims. "The Prince of Wales," paid light interests, half a million. Above the "Caledonia" the "Lilloet," and "Cariboo," were very rich. The "Aurora," with its 14 interests paid in dividends after all expenses were paid about \$39,900 per interest. On the "Dillon" two men working on the windlass and two underground took out in ten hours 120 pounds of gold. In all over \$200,000 was paid in dividends to the three interests in this claim. Above the "Black Jack," which was rich the "Windup" was a rich faction. From "Canyon" to "Prince of Wales" on up to the "Saw Mill" the "Erickson Nigger" and others paid from \$25,000 to \$50,000 to the interest. Dozens of other claims along old Williams Creek paid enormously, and the Creek never received, says Mr. Orr, credit for nearly all of its enormous output, it being generally said that the sum of \$25,000,000 was taken out of one and a half miles. Mr. Orr says it was twice that amount. In any case it was such a creek as was never before struck and so far the Klondyke is not in the race for second output. Other creeks in the neighborhood, Mr. Orr says, will yet prove as rich perhaps as Williams Creek was. Lightning Creek, Swift River, Slough Creek, Willow River and dozens of other creeks which have never been bottomed will yet give up their hoard of gold. Of Ominica, Mr. Orr, who spent two years there, says: "It was barely scratched and the whole of the Cassiar country is yet comparatively virgin ground." The enormous cost of provisions, difficulties of access and cost of labor all combined to make the gold hunter drop work that would not quickly and enormously repay. To-day there is no better gold country to prospect than from Cariboo through to Klondyke. From Ashcroft through it is only a little over a 1000 miles of which the first 220 miles is by a first-class wagon road, the next 460 by trail and the balance by a splendid water course down Teslin Lake and the Hootalinqua River. But within one year the excitement will be very likely centered in the Cassiar range of mountains from which watersheds the sources of the Yukon largely spring. For the prospectors who wish to go in cheap we say: Start from Ashcroft in April, leave Quesnelle in May and you can spend the season most profitably in prospecting through Telegraph Creek. If you wish you

could then sell your pack animals, for which there is always a demand at that point, and build a boat, and in a week from the time you leave Lake Teslin you can reach that now most talked-of spot on earth—Klondyke.”

The Mackenzie Porcupine Route.

Next to the St. Michael's this is unquestionably the most convenient route, and also the next longest. A party taking this route would travel by rail to Edmonton, a distance of 1,032 miles from Winnipeg, thence by stage 90 miles to Athabasca Landing. From this place is practically unbroken navigation, by lakes and rivers, for some 1,800 miles to Fort McPherson on the Peel River, a few miles above the Mackenzie River delta, and the traveller may elect either to procure a boat and take it to Ft. McPherson, or take passage on one of the Hudson's Bay Co.'s steamers plying on this riverful route. From Ft. McPherson to La Pierre's House on the Porcupine or rather on the Bell River, a short distance above its junction with the Porcupine is a portage of some 70 or 80 miles. But this portage is very easy and according to the president of the Edmonton Board of Trade, Mr. Isaac Cowie, the Indians will in winter take freight by dog trains over this portage for \$1.50 per 100 pounds, though in summer they demand 14 cents a pound. From La Pierre's House navigation on the Bell and Porcupine Rivers is unbroken to the Yukon, a distance of 400 miles. The Yukon, of course, is navigable all the way up the distance from the mouth of the Porcupine to Dawson city being about 370 miles. On this route 400 miles are within United States territory, two hundred miles on each of the rivers, the Yukon and the Porcupine.

As the portage between Ft. McPherson and La Pierre's House is feared by some who otherwise believe this route quite feasible, it is worth while to publish the description given of it in 1888 by Mr. Wm. Ogilvie. He came across the country, practically in a direct line, in the spring, leaving the Yukon on March 17th and reaching La Pierre's House June 6th, having been detained some six weeks on the Upper Porcupine, awaiting the break up of the ice.

The following are extracts from his published description :

Bell River is named after Mr. J. Bell, of the Hudson's Bay Company, who crossed to it and descended it to the Porcupine in 1882. He also followed the Porcupine below the junction for three days.

The route always travelled from this post to Fort McPherson crosses the mountains in a pretty direct line. There are two routes, one for winter travel and one for summer. The distance between the two points is called about eighty miles, and it generally takes three days to make the trip.

All the trading outfits for La Pierre's and Rampart Houses have to be brought this way in the winter months on dog sleighs, and the furs and meat received for it have to be taken to Fort McPherson in the same way. From there the furs are sent out by the Mackenzie. This is so costly and slow that in 1872 Mr. James McDougall, (now Chief Factor), then a clerk in the Hudson's Bay service, thought of trying some more convenient and expeditious way. Accordingly he

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made an exploration and survey of a pass through the mountains to the north of
his route, with a view to building a wagon road through it, and using oxen to
transport the goods from one waterway to the other. I went through the pass on
my way to Fort McPherson, and will describe it in its proper place.

Mr. McDougall, also, in July, 1873, when the water was unusually low,
made soundings in Bell and Porcupine Rivers to determine the practicability of
steamboat navigation, carefully examining both rivers in places suspected of
being shallow. Between La-Pierre's House and Yukon River he found five
shoal places, where the depth was less than four feet.

On the morning of the 8th of June I started from LaPierre's House to go to
the Bell River to the pass above mentioned as having been explored and surveyed
by Mr. McDougall, having as a guide the Indian I had brought from Eagle
River, who had been through the pass once or twice and was supposed to know
all about it. I carried on the survey, as on the lower part of the river, by taking
compass bearings of prominent points on the river and estimating the distances to
them. In this way I made the distance to the point at which we leave Bell
River to go through the pass to be about twenty-one miles; yet, owing to the
many and long sinuosities of the river and detentions from ice jams, one of
which delayed us half a day, it was three days before we arrived there. The
current is nowhere strong, but there are some shoal places where the heavy ice,
fully five feet thick, grounds and piles up until the accumulated water behind
pushes it over.

On the morning of the 12th my guide told me that most likely we would
reach the mouth of the creek, which flows from the pass, about dinner time.
Judge my surprise, therefore, when a few minutes after starting he pointed to the
mouth of a stream almost hidden by willows and alders, and asked if I thought
that was the creek in question, and when I said "No," he answered me it was.
I could not believe him until I went ashore and found the preparations that had
been made by Mr. McDougall to build a storehouse in which to deposit the goods
brought through the pass.

The canoes were put into the creek, which is only thirty or forty feet wide.
For the first two or three hundred yards the water was deep, and smooth enough
to paddle along with ease, but then came the end of our pleasure. The creek
for about a mile and a half was one continuous rapid, not dangerous, because
there was not enough water to hurt anyone; but so shallow that it would hardly
float the canoes when all the men were out of them; so we had to wade in ice
water, while snow was falling, and drag our canoes, with our outfit in them,
over bars and stones in the creek, until at last even that comfort was denied us,
for we reached a part of the stream where the ice was still solid, and at least ten
feet thick, so that everything had to be packed for nearly a mile, to where the
creek was again clear of ice, when we re-embarked and floated up about three
miles in a straight line, but certainly twice that distance by stream. Here
everything had to be carried about four miles across the watershed of the pass to
a creek which flows into Trout River, a tributary of Pell River. On the summit
of the pass are several lakes, which, had they been open, would have reduced
our packing to less than half a mile; but the ice was still solid with only a few
pools of open water around the edges.

On the morning of the 15th everything was got across to waters flowing to
the Arctic Ocean, but the creek was so full of snow and ice that it did not help us
much, and, although it was only three and a half miles to Trout River, the whole
day was consumed in getting there.

I may say here that I compared notes of survey with Mr. McDougall, who
measured his distance with an error probably not greater than one in a thousand.
His survey followed the valley of the pass from bend to bend and cut off many
turns in the river, while mine followed the course of the river more closely, and
is consequently somewhat longer, the actual difference on the whole distance
being about five miles; but when I take off my plot a length corresponding as
nearly as possible with a line of Mr. McDougall's survey, I find the difference

very slight. Many of his pickets were still standing, with a piece of sod on the top of them, as fresh looking as though they had been planted but one year, instead of sixteen.

From where we enter Trout River this route to the head of slack water is about twenty-four miles by the river. In this distance the fall is one thousand and ninety feet, but to determine what the grade of a road built on this, by the steeper side of the pass, would be, we have to assume a nearly straight line instead of following the bottom of the river valley. This would reduce the distance to about twenty miles, thus giving an average grade of fifty-five feet to the mile on this side of the pass. This is not too great for any kind of roadway which may be built here.

Ten and a half miles down the river we reach the canyon. Here we are out of the mountains, and the character of the rock along the river changes completely, being here sedimentary. The walls of the canyon are of a stratified sandstone, the top strata appearing to be harder than those lower down.

At one place, while I was running past a cliff in a rapid, I saw what seemed to be a coal seam in the face of the cliff. It was three feet or more thick and extended the whole length of the cliff—about a quarter of a mile. I told Mr. McDougall of this, and he informed me that he had found the same seam, and had taken some of the coal to Fort Simpson to be tried in the blacksmith's forge there, and it was pronounced a fair quality of coal. The last rock exposure seen in descending the river is just at the foot of the swift water. On the north bank there is a low cliff of soft red sandstone, much weathered, as well as worn by the water of the river, which shows its softness.

The walls of the canyon, in which the river takes a sharp turn, are about eighty feet high. On the outside of the curve the walls are perpendicular, but on the inside they are not so steep nor so high. The current is always swift and shallow, but there is no danger in navigating it in canoes, excepting a liability to rub the bottom once in a while. The fall is uniform to the canyon, but below there is a succession of rapids with short intervening stretches of easy water. The fall between the canyon and the head of easy water is seven hundred and thirty feet, which in a distance of fourteen miles, gives twenty-two feet descent to the mile. This would not be at all dangerous over a uniform slope and a smooth bottom, but divide it into two or three rapids, and throw a lot of large rocks into them, and it makes running through them in a small boat exciting to say the least.

From the foot of the rapids to Peel River the current is very slow, and about four miles down the river branches, the Southern branch spreading out into numerous lakes, in which we were a day paddling around trying to find our way out. In most of them the ice was still floating. Had the Indian taken the northern channel we would have saved nearly a whole day in time, but he thought the southern channel was the right one until we were lost in it, and then recollected that we should have taken the other one. These channels join again below the lake and continue on to Peel River.

The surface here is flat and swampy with much good timber. Although this was the most northerly point reached (about 67 degrees 45 min.) the trees on this flat were as large on the average as those seen anywhere else on the survey. The Indian told me they called this part of the river Poplar River, from the fact that much of the wood grows along its banks near the mouth. That poplar grows on it is no very distinguishing River, so I propose to name it Trout River, from the abundance of trout that we caught in it up in the mountains.

Peel River was reached on the 19th June, and on the morning of the 20th, at 11 o'clock, we arrived at Fort McPherson, built on the east bank of the Peel River.

Before closing the further explanation might be made that though the portage between Peel River and the Porcupine is generally stated as 70 to 80 miles it can very easily be reduced to some 35 miles. About 12 miles above the junction

a piece of sod on the Peel and McKenzie, Rat River enters Peel river from the west. This out one year, instead is navigable for flat-boats some 30-35 miles and leading directly to the Bell and Porcupine Rivers. But leaving this navigable stretch out and allowing 70 head of slack water for the portage, it will be seen that out of the 2,740 miles by this route from fall to one thousand miles to Dawson City there are only 375 miles to go up stream and some 180 built on this, by portages over some of which easy wagon roads are already made and over the nearly straight line a road can be made without much expenditure. On this route there are could reduce the distance 2,200 miles of down stream navigation, making it a comparatively easy of fifty-five feet to the right route. Like the St. Michael's route the Mackenzie cannot be depended on any kind of roadway navigation before July 1st nor after Sept. 30, because of the high latitude of Fort McPherson and the Porcupine.

n. Here we are of Rev. Father Husson, who spent 23 years in these regions, gives in "Le stratified sandstone of Manitoba" the following concise account of the Mackenzie route:

I saw what seemed to be more thick and dark than the other. I told Mr. McSmith's forge then the exposure seen in the north bank the well as worn by the sharp turn, are about perpendicular, but the river is always swift and accepting a liability of any, but below the mouth of easy water, and seven hundred and two feet descent on a slope and a smooth road. Afterwards you take the Slave river again at the foot of the rapids and of large rocks in the exciting to say the river slow, and about spreading out into the finding our way can taken the north but he thought the when recollected that in below the lake timber. Although (min.) the trees are else on the survey river, from the fact That poplar grows Trout River, fresh morning of the 20th, bank of the Peel t though the port as 70 to 80 miles above the junction

To reach the famous Klondyke gold mines, Yukon, from Winnipeg, you go to Edmonton by the C. P. Railway line. From Edmonton to Athabasca Landing, ninety-six miles, you cross by wagon. At Athabasca Landing you take to the Athabasca River, which you descend without difficulty to the grand rapid, a distance of about two hundred miles. You have to take the portage at the grand rapid, about two miles, which is the easiest thing in the world, thanks to the Hudson's Bay tramway. Then comes a succession of rapids, which you can shoot for a distance of ninety miles, and you arrive at Fort McMurray. This is the only road used by the Hudson's Bay Company and the Catholic missions for the transportation of their goods. From Fort McMurray you proceed, continuing to ascend the Athabasca River down to the lake of that name, about two hundred miles. You cross the end of Lake Athabasca, about 12 miles, and continue to follow the course of Athabasca River, which then takes the name of Slave River. About thirty miles down the waters of the Peace River join those of Slave River, and form a beautiful stream, which you descend without any difficulty to Smith Landing, some 120 miles from Athabasca Lake. At Smith Landing the course of the river is obstructed by a succession of rapids, which make the portage necessary all the way. This portage is sixteen miles long; there is a good wagon road. Afterwards you take the Slave river again at the foot of the rapids and continue your journey without hindrance to Great Slave Lake, a distance of about a hundred and fifty miles. You arrive at Fort Resolution. You cross the Slave Lake in a northwesterly direction and you arrive at the entrance into the Mackenzie River. A little lower down is situated the fine Catholic mission of Providence. The whole course of the Mackenzie River is navigable to its mouth; it is not obstructed by any rapid which necessitates a portage. In descending the Mackenzie River you pass in succession, Fort Simpson, at the mouth of the Liard River, Fort Wrigley, Fort Norman, Fort Good Hope, and you arrive at the mouth of the Peel River. You then leave the Mackenzie River to ascend the Peel River to the fort of that name, also called Fort Macpherson. From there there is a portage used by the Hudson's Bay Company for their transactions from fort to fort, as far as one of the branches of the Yukon. By descending this branch of the Yukon, otherwise called the Porcupine River, you arrive at the famous Klondyke gold mines. By this route you do not leave Canadian soil.

From these explanations it is seen that from Athabasca Landing to the gold mines the whole journey is performed by water, with the exception of two portages; the first, the Fort Smith rapids, presents no great difficulty, thanks to the wagon road; the second, that is to say, the one from Fort Macpherson to the Porcupine River, is very feasible in winter, especially by means of dog trains.

Certainly then this route is much shorter and much less expensive than all the other routes indicated. The distance from Edmonton to Fort Macpherson is only a little over eighteen hundred miles, while it is two thousand

five hundred miles from Seattle to the mouth of the Yukon, and eighteen hundred miles additional to Klondyke, which makes four thousand three hundred miles.

The Liard Route.

It is not our intention to advocate any special route as the best, but next to impossible not to recognize in this Liard-Pelly the route to the fields for cattle and pack horses, while with comparatively little expenditure might be made a pleasant and convenient one for travellers. Of the entire distance between Winnipeg and Dawson City, by this route, some 2,400 miles, 1,032 would be travelled by rail and about 400, at least, by boat, on the Peace and Yukon, while 120 miles east of the mountains, down stream on the Peace to its junction with the Liard, might also with ease be traversed by boat.

The following extracts are from a description of this route published in the Edmonton Bulletin, edited by Frank Oliver, member of the Dominion House of Commons, a gentleman who may be accepted as an authority :

The total distance is 1,400 miles, as against 1,600 by the Chilkoot Pass and 4,400 by Behring Sea and the Yukon River. Four hundred miles of this distance would be good and uninterrupted steamboat navigation on the Pelly and Yukon rivers; the whole distance except the last 200 miles would be through a growing region of good summer and moderate winter climate. The season of travel on it would be much longer than on any other route, as there are no high elevations to be crossed and the greater part feels the influence of the Chinook winds. It has been travelled throughout its whole length by scientific men and the highest repute in the employ of the Canadian Government, and their maps and reports are available to everyone for information regarding it. At several important points it touches the navigable water system of the Mackenzie and other points passes within reaching distance of the Omineca and Cassiar diggings besides crossing the gold-bearing Peace, following up the gold-bearing Liard and down the gold-bearing and very little prospected Pelly. Wagon roads, pack trails and boat routes form the through connection at present. It is because of the inconvenience of these changes in the mode of conveyance that it has not yet been used. It is desired in this article to place before the public as shortly and as plainly as possible the facts as to its probable practicability as an all land route, and the certainty that at a moderate expenditure it could be made an excellent cattle, pack trail and sleigh road throughout the entire length and a wagon road for a great part if not all of the distance.

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TABLE OF DISTANCES

TABLE OF DISTANCES		MILES
* EDMONTON TO ALONDYKE	VIA PROPOSED RY	1400
* REVELSTOKE		1480
* EDMONTON	MACKENZIE RIV.	2100
* "	PEACE & NELSON	1350
* ASHCROFT	CARIBOO & GERMENSON	1250
* PACIFIC COAST	STIKINE R. TESLIN L. LEWIS R.	940
	L BENNETT L LABARGE.	630
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TABLE OF DISTANCES.

The route to be followed and the distances from point to point are :

	Miles
Edmonton to Peace River crossing	260
Crossing to Forks of Nelson	240
Forks to Junction of Nelson and Liard	120
Nelson to Dease, up Liard	160
Dease to Pelly	170
Pelly to junction with Lewes	220
Junction to Klondyke	200
Total	1,870

EDMONTON TO PEACE RIVER.

From Edmonton to Peace River and on to the forks of the Nelson a number of routes may be taken, and the distance given above may be somewhat shortened. However, not to confuse, the best known will be taken, and the Peace River crossing will be considered an objective point. The Peace has to be crossed in any case. This part of the country has been travelled and mapped by Prof. Dawson, director of the Dominion geological survey, and his reports and maps are procurable from the geological department, Ottawa. The route at present generally taken by the Peace River traders, who outfit at Edmonton, is by wagon road to Athabasca Landing, 90 miles. At the Landing the freight is transferred to boats which are taken up the Athabasca, Lesser Slave River and Lesser Slave Lake. Their horses are driven on the south side of the Athabasca to the mouth of Lesser Slave River, 40 miles. Then they are swum across the Athabasca, and taken along the north side of Lesser Slave River, 40 miles, and along the north side of Lesser Slave Lake, 85 miles. At the Hudson's Bay Fort at the west end of Lesser Slave Lake the traders transfer their goods to carts, which are taken by road, 60 miles, to the crossing of Peace River at the junction of the Smoky. If horses are to be packed rough this route can be shortened by taking the wagon road through St. Albert to the site of Fort Assiniboine, on the Athabasca, 85 miles, then northwest to the head of Lesser Slave Lake, 115 miles, and by cart road to Peace River crossing. This route has not been travelled for some years and possibly better time would be made at present by taking the Landing trail.

There is a settlement near the crossing of Peace River, and a boat could be had there to cross in, while horses would have to swim. Information and guides for a further stretch of the journey could be secured there.

PEACE RIVER TO NELSON RIVER.

From Peace River crossing the country is mixed prairie and timber, westward along the north side of the Peace to Pine River, 100 miles west of the crossing. There is a good trail the whole of this distance. On reaching Pine River the direct course would be to turn northwestward along its east bank, between its waters and those of the east branch of the Nelson. This would make the distance from the point at which Peace River was reached to the forks of the Nelson 140 miles, or from Peace River crossing 240 miles. Information could be had at Peace River crossing, Dunvegan, or Ft. St. John as to the practicability of this direct route, of which there is very little doubt.

If, however, this route was found to be unadvisable to be followed, trail still good could be followed across Pine River to Ft. St. John and Halfway River, 40 miles. The Indians have a good horse trail up Halfway River to boat navigation on the west branch of the Nelson, about four or five days' travel with pack horses, which would not be more than 100 miles. It may, therefore, be taken as established beyond all question that an open trail exists from Edmonton to boat navigation on the west branch of the Nelson, by way of St. John and Halfway River, the total distance being 140 miles.

If it were found necessary to go to Ft. St. John in order to reach the Nelson River, it would be considerably shorter to take a direct pack trail which goes by way of Lake S. Ann, Sturgeon Lake, Smoky River and Grand Prairie, crossing the Peace at Ft. St. John, instead of at the mouth of the Smoky before suggested. The route was followed by Henry McLeod, C. E., who was employed by the Canadian government to explore the South Pine River for the C. P. R. in coming from the pass to Edmonton, and is shown on the geological survey maps accompanying Prof. Dawson's report.

In this connection it may be mentioned that any part of the Peace River region is suitable for horses to winter out. Considerable gold has been won from the bars near Ft. St. John. At the forks of the Peace, easily accessible from Ft. St. John and about 100 miles further north, a very rich bar was worked a number of years ago by W. Cust and E. F. Carey. Between 50 and 75 miles west of this point on the Ominica branch of the Findlay, which is the north fork of the Peace, good diggings are now being worked.

NELSON RIVER.

That there is a good boat navigation down the west branch of the Nelson admits of no doubt. Ogilvie started up the Nelson about September 10th, although he suffered many unnecessary delays he left the upper part of the branch within 100 miles of Ft. St. John on October 7th, the land distance being about 120 miles and no portages having been made. As this was a season of low water, this proves the suitability of the river for down stream navigation. In fact the Indians use the Nelson and the Halfway river as a canoe route, there being a portage of 25 miles between them and a clear point. A party of miners took this route on the Peace River to the mouth of the Nelson about 1873. They went up Halfway River in the fall, crossed the portage in the winter and went down the Nelson in the spring.

As to the suitability of the country from the Peace to the west branch of the Nelson for packing through, Mr. Ogilvie in his report, and Mr. Benton of Edmonton, who accompanied him, speaks of the timber as poor, scrubby and the land generally firm, as it naturally must be being well drained and on the rise of the foothills of the Rockies.

On reaching either east or west branches of the Nelson with pack horses, packs could be lightened on to boats or rafts, and the journey to the mouth of the Nelson made very easy on the horses by this means. Certainly this could be done with advantage from the Forks down, about 120 miles by land, probably from 40 to 50 miles above the Forks, on either branch. Ogilvie, confined to the river in his travels, gives no idea as to the possibility of

le to be followed. Ft. St. John and of horse trail up Halson, about four or re than 100 miles. tion that an open ne west branch of tal distance being in order to reach direct pack trail w river and Grand P mouth of the Smok y McLeod, C. E., e South Pine River n, and is shown of report. part of the Peace le gold has been was Peace, easily acces th, a very rich bar Carey. Between 50 the Findlay, which worked.

vel along the Nelson. Certainly there is no such prairie as on the Peace ver, and the timber becomes larger with the distance north. But the Nelson ws along the easterly base of the foothills of the Rockies, for its whole ighth. Geo. Sutherland, of Stony Plain, who lived at Forts Liard and Nelson some years, has been in these foothills, and he describes the slope towards Nelson as dry ground with scrubby timber. Domestic cattle were kept at th Liard and Nelson, and in the gardens at those posts all the vegetables it can be grown at Edmonton were grown with the greatest perfection. orses were not in general use by the Indians of the district but some were ed, and the Hudson's Bay Company purchased several for use at the posts. earlier times the Indians had more horses, but owing to lack of care in hard ters many had died off. Murdock McLeod, of Belmont, also lived several rs at Fort Liard and visited Fort Nelson on the Nelson and Fort Hackett the Liard. He describes the country as seen to the west and south from th rivers as consisting of rounded timbered hills. No rugged mountains ng in sight, until Fort Halkett, which was at the entrance to Grand Canon was ched. He killed a wood buffalo near the junction of the Nelson and Liard. parties agree as to the possibility of a wagon road being made at very erate expense from Edmonton to the South of the Nelson, and then stward up the Liard Valley at least to the base of the Rockies. Certainly ttle and pack trail and sleigh road could be cut out very cheaply, the only estion being as to whether the country is already passable or not. Mr. herland mentions that Chilkat Indians from the Pacific Coast sometimes ne to Fort Liard to trade. Their route was down the Liard River, but he ot know how long the trip took. However, it is further proof as to the cticability of this route through the mountains.

LIARD RIVER.

est branch of the Ne out September 10th. he upper part of the 7th, the land dist made. As this wa er stream until the Rocky Mountains were passed. R. G. McConnell, of he river for down st geological survey, explored the Liard between the mouth of the Nelson the Halfway river the mouth of the Dease, 160 miles, in the summer of '87, coming down ven them and a eam in a boat. His reports and maps are published by the Dominion ceace River to the ological survey. The Liard was used as a boat route from the Mackenzie, ll, cross the port Fort Simpson, to the Pelly branch of the Yukon, by the Hudson's Bay Co., many years.

ce to the west bran Going carefully over the information obtainable as to this part of the route, s report, and Mr. ch includes the crossing of the Rocky Mountains, the only possible obstacle ks of the timber as pack and cattle travel at present would be the timber, which might require ust be being well dr be cut through in places. On the other hand unless the conditions are y different from what they are elsewhere in the Northwest the timber would elson with pack hors form any very serious objection. Feed for animals most certainly exists e journey to the mo along, which is the main consideration, and the climate certainly cannot be ns. Certainly this ere.

CASSIAR.

er branch. Ogilvie Dease River enters the Liard from the south 160 miles above the mouth of Nelson. From the Liard to Thibert and McDame Creeks, which are the

principal mines in the Cassiar district of British Columbia, is less than 100 miles, and practicable either by pack trail or canoe.

FRANCIS LAKE AND PORTAGE.

From the mouth of the Dease to Pelly River was explored by Prof. Dawson, director of the geological survey of Canada in 1887. The distance to the beginning of the portage from Francis Lake to the Pelly is about 120 miles. This was made by canoe and the navigation is not quite as difficult as in the part of the Liard from Dease River down. The distance from Francis Lake to Pelly River is about 50 miles. The greater part of this can be made in canoes up Finlayson Creek to the lake of the same name and down Campbell Creek. The divide crossed in this distance is somewhat mountainous, but "no very high summits were seen, the elevations being as a rule rounded and regular in outline, and forming broad, plateaulike areas." The climate becomes less moist as Francis Lake is left, and dry, gravelly terraced flats are not uncommon.

"Grassy swamps are found in a number of places, and a good growth of grass is also met with where areas have been denuded of forests by successive fires, so that should it ever become desirable to use horses on this portage they might be maintained without difficulty."

P. C. Pambrun, of Battieford, was Hudson's Bay officer in charge of Francis Lake and Pelly Banks posts a number of years ago. He says the chief difficulty in the way of a pack trail would be the heavy timber along the Nelson and lower part of the Liard. The country is rugged but the ground is solid, with very few muskegs. There is plenty of grass along the route, but being different from that of the prairie, horses used to the prairie grass will not do as well on it. Horses native to that country would winter out on the Liard, but horses taken through from the plains would have to be fed hay. Horses taken from the plains could winter well on the Peace River prairies. Plenty of hay can be cut at the site of Fort Halkett and at Francis Lake. Domestic cattle were kept at the former post by the Hudson's Bay Company. The snow is never very deep at Fort Halkett as the chinook reaches there in the winter time. At Francis Lake winter lasts from November 15th to May 1st. Wild fowl come about May 15th. It is no colder in winter at Halkett or Francis Lake than at Edmonton, but across the divide on the Pelly it is much colder.

Prof. Dawson mentions that in the vicinity of Francis Lake wild roses in bloom were abundant in June. The forest growth resembles that of interior British Columbia. Although the weather was showery when he was there he considered that neither the snow nor rainfall was very great. The elevation of Francis Lake above the sea is 2,577 feet. The height of the watershed between the waters of the Liard and Pelly is 3,150 feet.

PELLY RIVER.

Prof. Dawson reached Pelly River on July 29th, 1897. The elevation above the sea at this point was found to be 2,965 feet. The river is 327 feet wide with a middle depth at that date of 7 feet. The professor believes it to be navigable for steamboats at that point and for a considerable distance

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further up the lakes in which it heads. In going down he found it suitable for steamboat navigation and uninterrupted except by two rapids. The first was at the mouth of the Hoole River, about 20 miles below the portage. This rapid might be run safely, but can be avoided by a short easy portage. Another rapid occurs about ten miles further down in Hoole canyon. This rapid must be avoided by a portage half a mile in length. From this point there is uninterrupted steamboat navigation to the sea.

The land-distance, by the Pelly, from the Francis Lake portage to the junction with the Lewis is about 200 miles, and the water distance 320 miles. The country is not rugged, the timber is not large and many open grassy slopes are mentioned along the banks. The climate is evidently more moderate than in the Klondyke region, and apparently there is no reason why pack horses or loose cattle should not be driven through this region without difficulty. Cattle and horses have already been driven to the mines from the Chilkat pass down the Lewis, where the country is much more rugged than on the Pelly. In any case with a large navigable stream flowing direct to the mines, once men were at the Pelly River the difficulties of reaching the Klondyke diggings, with either cattle or freight, would be over, provided the time of the year were suitable. If the season were too late for navigation, Francis Lake is evidently a better wintering place than anywhere on the Yukon waters, and the surrounding country offers as good a field for the prospector as any other part of the gold region.

Spruce up to two feet through is found at intervals all along the Pelly, but is not as abundant on the upper as on the lower part of the river.

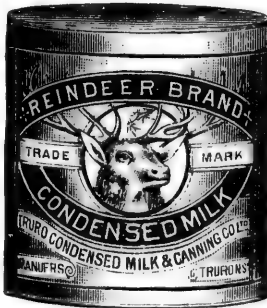
From the junction of the Pelly with the Lewis about 200 miles from Francis Lake portage, to the Klondyke digging, the Pelly River and Chilkoot pass routes, whether by land or water, would be the same and the distance would be about 200 miles, the mouth of the gold-bearing Stewart River being passed on the way.

It will not be out of place to finish this interesting description by a quotation from statements made by the late Roderick Campbell for many years an officer of the Hudson's Bay Co., who several times traversed all the northern mountain districts:

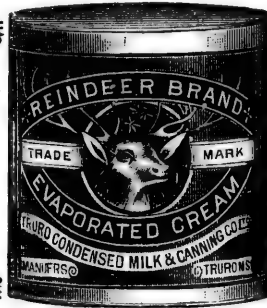
In this connection it may be said that there are already pack trails for a good part of the distance along this route, which have been used for years by the Hudson's Bay Company, miners, traders and hunters, the ascent of the mountain ranges is comparatively easy, and there is a good deal of open country between the summit and Pelly. As has already been intimated the whole journey from Athabasca Landing to the Pelly, a distance of about 900 miles, might be made with pack horses, and a wagon road might be made at a reasonable expenditure. On reaching the Pelly the gold-seeker by this route would be less than 200 miles above the present gold fields, with a gently flowing current interrupted by only one rapid to bear his craft to the Mecca. All the river beds southeast of the Yukon are auriferous, and much gold will be found south and east of where the present finds are being made. Probably many of those who go this way will not go to the Yukon as they will make strikes along this route on the numerous gold-bearing streams. The interior of the Athabasca and Yukon districts have scarcely yet been prospected, and

Safe Advice

"Carry only Thoroughly Reliable Goods to the Klondyke."



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The "Reindeer" Brand Condensed Milk must be pronounced of excellent quality and in every respect satisfactory.

DR. ARTHUR HILL HASSELL,
Analyst, Sanit. Inst., London, Eng.

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DR. OTTO HEHNER,
Hon. Sec'y of Soc'y of Pub. Analysts, London, Eng.

PROFESSOR JAMES W. ROBERTSON, Dominion Dairy Commissioner, says:

The Truro Condensed Milk, "Reindeer" Brand, has been analyzed by our Chemist, and found superior to the famous Swiss products.

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it is safe to say that there will soon be greater discoveries than those of Klondyke and neighboring diggings. When the writer was making a tour along the north coast of British Columbia in 1891 he saw much gold dust and nuggets at the trading posts at the mouth of the Skeena River and at Port Simpson, near the mouth of the Nass River. The nuggets were brought to Port Simpson by Indians from the interior and were washed from surface sands in small streams. The dust brought down the Skeena River was also washed out by the Indians, who do not penetrate the interior very far. The Indians guard the whereabouts of the deposits religiously, but they will without doubt be brought to light sooner or later by the sturdy and intrepid prospector.

WHAT TO TAKE.

It is impossible to say exactly what to include in the supplies a miner bound for the Klondyke should take with him, as the taste of no two men are alike. The appended list may, however, be taken as mainly correct, as to the needs of one man for one year (and once more it is well to state, and to emphasize the point, that no one should take a whit less than one years supply of provisions, at least until an all-year route for passengers and freight is opened to the mining camp). The list is gathered from the estimates of various outfitters on the Pacific Coast, who have had years of experience in supplying mining camps in various parts of the mountains:

GROCERIES.

Flour	lbs	400	Coffee	lbs	25
Cornmeal, two 10s	lbs	20	Tea	lbs	10
Rolled Oats, two 20s	lbs	40	Compressed Soup	doz	3
Rice	lbs	25	Compressed Soup Vegetables	lbs	10
Beans	lbs	100	Soda	lbs	3
Sugar	lbs	75	Salt	lbs	20
Dried Fruits, (apples, peaches, apricots,	lbs	75	Pepper	lbs	1
Yeast Cakes	pkgs	6	Mustard	lbs	1
Baking Powder	lbs	10	Gluger	lbs	1
Dry Salt Pork	lbs	50	Jamaica Ginger, (4 oz)	bottles	2
Bacon	lbs	150	Evaporated Vinegar	qt	1
Dried Beef	lbs	30	Laundry Soap	bars	10
Extract of Beef, (4 ounces)	doz	1	Toilet Soap	cakes	5
Evaporated Potatoes	lbs	25	Candles	boxes	40
Dried Onions	lbs	5	Matches	boxes	3
Butter	doz	2	Tobacco		
Condensed Milk	doz	2			

HARDWARE.

Stove	1	Hatchet	1
Bread Pan	1	Whip and Hand Saws	each 1
Frying Pan	1	Shovel	1
Water Kettle	1	Axe and Handle	1
Granite Iron Buckets	2	Files, (assorted)	doz 1
Coffee and Tea Pots	each 1	Nails	lbs 20
Knives and Forks	each 1	Drawkife	1
Spoons	tea and table, each 3	Planes, Braces, and Bitts	each 1
Cups	2	Chisels, (assorted)	3
Plates, (tin)	3	Butcher Knife	1
Gold Pan	1	Compass	1
Pick and handle	1	Revolvers and Rifles	each 1
Sleigh	1	Pitch and Oakum	
Whetstone	1	Rope, (1/2 inch)	feet 100

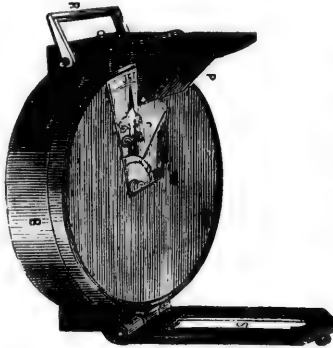
CLOTHING, Etc.

Tent 10x12 for four.	1 Heavy Mackinaw Coat, for each man.
Canvas for wrapping.	3 pair Heavy Blankets, for two men.
Two Oil Blankets to each boat.	2 Rubber Blankets, for one man.
5 yds Mosquito Netting to each man.	2 pair Overalls, " "
3 suits Heavy Underwear to each man.	2 pair Shoes, " "
2 Heavy Overshirts, " "	2 pair Heavy Snag-proof Rubber Boots for each man.
1 doz. pair Heavy Wool Socks, " "	1 suit Oil-clothing.
1 doz. pair Heavy Wool Mitts, " "	4 Towels.
2 pair Heavy Mackinaw Pants, " "	

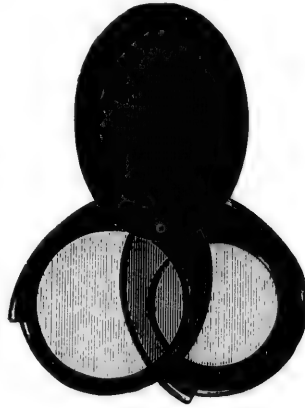
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LEVELS, LEVEL-
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RANGING POLES
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Established 1857.

CANADA.

Besides the enumerated articles it is well to have one Pocket Rule, at least, one Trout Line, and at least one pair of good Snow-glasses, for the prevention of snow blindness. A well assorted Medicine Chest is also a necessity. Any reliable druggist will be able to give the necessary aid in selecting drugs and in packing them safely for the journey. There are two things in the line of drugs that no one should forget to be well supplied with, and that is : Arnica and Carbohc or other reliable healing salves.

COST OF THE TRIP.

It is plain that in giving the cost of a trip to the Klondyke it is absolutely impossible to give the exact figures. There are many charges intimately connected with transportation, hotel charges, etc., that no man can begin to count and hoping to make a correct guess. Supposing, however, that the prospective Klondyke miner is bent on business alone and anxious to make the dollar go as far as possible, without being niggardly, it is possible to come somewhere near the mark.

It must be borne in mind, however, that prices of even staples may vary. Should the supply of a given article run short at a given place, up goes the price. Even the transportation charges proper, railway and steamship fare, are liable to change at any time. Keeping this in mind it should be needless to state that any and all figures given here and based on prevailing prices at the time of writing, are given merely as approximate, and not as showing the actual cost. For many changes may be wrought in a single month, and much more then in six months or a year.

It is stated elsewhere in this little volume that the steamship fare by way of the St. Michael's route from Victoria to Dawson City is \$150.00. As an evidence that transportation charges are liable to change, it may now be stated, on the authority of one of the officers of the North American Transportation and Trading Co., that the fare has been raised to \$200.00. A person taking this route and for the sake of economy buying a second class ticket from Winnipeg to the Coast, can by no means expect to get to Dawson City from Winnipeg for less than \$250.00, and this will include baggage of 150 lbs. The company, and the same thing applies to the one other corporation taking passengers by this route, being a commercial concern and carrying on stores at various points in the north will not take freight for any man, but instead offers to furnish them with anything needed out of its warehouses at Dawson City, at the then ruling price in the camp.

Klondyke travellers choosing the Dyea route cannot expect to get along with less than \$70.00 to \$75.00 between Winnipeg and Dyea, for railway and steamship fare, meals and lodging, etc., and freight charges on supplies from Victoria to Dyea. As previously stated, and according to all having wintered in the Yukon, no one should take with him less than 1,000 lbs of supplies. Taking that as the average and allowing 100 lbs. as the load of each traveller over to Lake Linderman, he has still not less than 900 lbs. to freight over, and according to the present price for packing, he would have to pay \$225.00 for getting the 900 lbs. over to Lake Linderman. This brings the cost so far up to \$300.00. At Linderman a boat may be bought for \$75.00 or \$100.00 and incidental expenses at Juneau and Dyea, added to the price of the boat, will

easily bring the total cost up to \$400.00. In this connection it may be stated as the universal advice of those having been there, that no one should leave Winnipeg for Dawson City over the Dyea route, with less than \$500.00 in his pocket. This sum then may be considered as the actual cost of the trip, by the time the "diggins" are reached; certainly not less than \$400.00. And while on this subject it might not be out of place to remark, that according to the latest obtainable information, the freight charges from Dawson City to the "diggins" are now up to 25 cents a pound. We do not state this as an undisputable fact, but considering the charges for packing goods over Chilkoot pass, it does not seem as unreasonable as at first view it appears. Considering that at the present time every claim is taken up within at least 150 miles of Dawson City, and the further fact, that this is a practically trackless mountain district, in many places almost impassable, 25 cents a pound becomes in reality not such an exorbitant charge.

BY WAY OF EDMONTON.—Choosing the Lionel-Pelly route the railway fare and incidental expenses from Winnipeg to Edmonton would be about \$45.00. Once in Edmonton the first thing to do would be to procure packhorses, packsaddles, etc. The price of packhorses at the present time runs from \$25.00 to \$40.00, and an average packhorse will pack from 225 lbs. to 250 lbs. on a fairly good trail. Allowing 225 lbs. as the average load for a horse, 5 of them would pack 1125 lbs. of supplies. Taking two extra horses, seven horses in all would be purchased at an average price of say \$35.00 each, or in all \$245.00. Packsaddles, ropes, etc., at present prices in Edmonton, would cost \$8.00 for each horse, or a total of \$56.00 for seven horses. Parties taking this route in the immediate future, before a road has been clearly marked out across the undulating prairie section, would in all probability require an Indian guide to take them as far as the Pelly Banks. A good guide can be hired at \$1.50 per day and willing to take at least a portion of the pay in trade. One guide will serve twenty men as well as one, but supposing the average party to be composed of twelve men and supposing further that they travel only 16 miles a day on the average, a low enough estimate between Edmonton and Pelly Banks, they would cover the distance (950 miles) in 60 days. The pay of the guide then would be \$90.00, or \$7.50 to each member of the party. This brings the cost up to \$353.50 or say \$360.00, for the entire trip from Winnipeg to the gold bearing valleys of the Yukon. In this connection it should be observed that the seven horses brought from Edmonton would find a ready sale in Dawson City or surrounding camps at \$200.00 each, or more, horses in that district being worth from \$250.00 to \$300.00 at the present time and no sign that the supply will equal the demand in the near future.

By way of the Mackenzie-Porcupine route the cost of the trip on the same basis would be, roughly speaking, about \$160.00. As no correct figure is obtainable this is mere guesswork and is arrived at in this way. The charge for freighting goods from Edmonton to Athabasca Landing is \$1.50 per 100 lbs. The fare for each member between these points should not exceed \$5.00. At the Landing a boat will have to be bought or built and they range in price from \$100.00 to \$300.00, according to size and whether a sailboat or merely a row-boat. A guide to Fort McMurry will cost at least \$25.00 and portaging boat and goods over Smith portage will run from \$10.00 to \$15.00, while \$15.00 to

\$25.00 will be required for transporting the outfit from Peel River to La Pierre's house. These several amounts added to the initial cost, from Winnipeg to Edmonton, bring the total up to at least \$160.00. What it would cost to tow the boat or transport the men and goods from Ft. Yukon 375 or 400 miles to Dawson City, it is, of course, impossible to even guess at, at the present time.

WHERE TO OUTFIT.

As previously pointed out those taking any of the Pacific Coast routes should procure every article required in the towns or cities on the Canadian side of the boundary line, provided, of course, as at present, the point of destination is within the Dominion. Vancouver and Victoria are the principal trade centres in British Columbia and goods there will be found in equally great variety and equally cheap as in towns and cities on Puget Sound. The difference there is this, that goods bought in Canada and shipped to Canadian points go through without delay and without payment of duty, whereas the man allowing himself to be cajoled into purchasing his outfit in Puget Sound cities will have to pay heavy duty on goods costing as much originally as the same class in Vancouver or Victoria.

It may seem farfetched to bring articles of commerce from Winnipeg to the Coast and then reship north, but it is unquestionably a profitable investment to purchase in Winnipeg many of the smaller articles that weigh but little, but make up a goodly item of expense. The same thing applies to clothing, etc. Woollen goods of all kinds can be bought considerably lower in Winnipeg than anywhere on the Coast. This is an undoubted fact and prospective Yukon miners should look into it.

Yukon travellers taking the Liard route or proceeding by any other known road to the Northern Mecca from the east side of the mountains, should certainly procure as much of their supplies as possible in Winnipeg. Every article of clothing, etc., will be found a great deal cheaper in Winnipeg than in Edmonton, and the same may be said of all the numberless small articles required. Not only would this be the means of saving considerable money, but might also be the means whereby all delay would be avoided. Edmonton merchants can not be expected to carry as heavy stocks as those in Winnipeg, the wholesale centre for the entire western country. A sudden rush, therefore, might easily exhaust the supply of certain goods in Edmonton, thus causing unavoidable and annoying delay, while no rush would be too great for Winnipeg merchants to cope with. Horses, flour, etc., and all goods of heavy weight, and kinds that every storekeeper at all times has on hand in greater or less quantity, had probably better be bought in Edmonton. Still it would be advisable to get quotations from Winnipeg merchants before deciding. As regards equipment for horses, pack saddles, etc., the price is somewhat lower in Winnipeg, and the supply in Edmonton would soon be exhausted if a sudden demand arose. It might therefore be advisable to procure pack saddles, etc., in the Winnipeg saddlery houses.

EIGHT ROUTES TO THE KLONDYKE.

Comparative Distances.

ST. MICHAEL'S ROUTE.

	Miles.
Winnipeg to Victoria.....	1,600
Victoria to Dutch Harbor.....	2,000
Dutch Harbor to St. Michael.....	750
St. Michael to Yukon Mouth.....	80
Yukon Mouth to Dawson City.....	1,780
	6,210

DYEAL ROUTE.

Winnipeg to Victoria.....	1,600
Victoria to Dyea.....	1,000
Dyea to Lake Linderman.....	30
Lake Linderman to Dawson City....	545
	3,175

WHITE PASS ROUTE.

From Winnipeg to Dawson City, about.....	3,250
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STIKEEN RIVER ROUTE.

Winnipeg to Victoria.....	1,600
Victoria to Wrangell.....	750
Wrangell to Telegraph Creek.....	150
Telegraph Creek to Teslin Lake.....	150
Teslin Lake and River.....	325
Teslin River to Dawson City.....	330
	3,305

LIARD-PELLY ROUTE

Winnipeg to Edmonton	1,032
Edmonton to Peace River Crossing.....	260
Peace Crossing to Forks of Nelson.....	240
Forks of Nelson to Liard Junction.....	120
Liard Junction to Dease River.....	160
Dease River to Pelly Banks.....	170
Pelly Banks to Lewis River	220
Yukon to Dawson City.....	200
	2,402

MACKENZIE-PORCUPINE ROUTE.

Winnipeg to Edmonton.....	1,032
Edmonton to Athabasca Landing.....	90

Landing to Grand Rapids.....	167
Rapids to Ft. McMurray	87
Smith Portage (tramway).....	16
Ft. Smith to Peel River.....	1,287
Peel River to La Pierre's House.....	70
La Pierre's House to Yukon River.....	400
Yukon to Dawson City.....	400
	3,549

The Yukon Basin.

HISTORICAL SKETCH OF THE YUKON DISTRICT.

As a great many people seem to be under the impression that the famous Klondyke is a district entirely distinct and separate from the Yukon district, it is but just to state that the Klondyke is but a small portion of the Yukon district itself—size compared, a mere speck—and situated somewhere near the centre of the Yukon district, measuring from north to south only about one hundred miles from its western boundary, taking its name (Klondyke or Klondak) from a small river named Thron-Diuch, flowing from the southeast and joining the Yukon a short distance above Dawson City, the present commercial metropolis of Yukon placer fields. Dawson City, it might further be said, is situated at about 139 W Long. and 63.30 N Lat., or about 2,000 miles in a direct line northwest of Winnipeg.

The following historical sketch of this far northwestern district is gathered from reports to the Dominion Government by that distinguished explorer and surveyor William Ogilvie, D.L.S., who has spent several seasons, since 1886, in exploring, surveying and making lunar observations in that immense territory bounded on the east by the McKenzie, on the north by the Porcupine and Rat Rivers, on the west by the International boundary, no small portion of which he himself has determined, and on the south by the Coast Range of mountains.

"The Yukon district comprises, speaking generally, that part of the Northwest Territories lying west of the watershed of the McKenzie River; most of it is drained by the Yukon River and its tributaries. It covers a distance of about 650 miles along the river from the Coast Range of mountains.

"The first people from civilization to enter the country were the traders for the Hudson's Bay Company. In the year 1840 Mr. Roderick Campbell was commissioned by Sir George Simpson to explore the Upper Liard and to cross the height of land in search of any river flowing to the westward. After ascending the river to its head waters he struck across to the head of the Pelly River, thence down the Pelly to the confluence of the Lewis, at which point he turned back, his men having been discouraged by the stories of the Wood Indians encamped there, who represented that the lower portion of the river was inhabited by a large tribe of cannibals. Thus it was not until 1850 that he could establish what he says he all along believed, that the Pelly and the Yukon were identical. This he did by ascending the river to where the Por-

cupine joins it, and where, in 1847, Fort Yukon was established by Mr. A. H. Murray for the Hudson's Bay Company.

"In 1848 Campbell established Fort Selkirk at the confluence of the Pelly and Lewis Rivers; it was plundered and destroyed in 1852 by the Coast Indians, and only the ruins now exist of what was at one time the most important post of the Hudson's Bay Company to the west of the Rocky Mountain's in the far north. In 1869 the Hudson's Bay Company's officer was expelled from Fort Yukon by the United States Government, they having ascertained by astronomical observations that the post was not located in British territory. The officer thereupon ascended the Porcupine to a point which was supposed to be within British jurisdiction, where he established Rampart House; but in 1890 Mr. J. H. Turner of the United States Coast Survey found it to be 20 miles within the lines of the United States. Consequently, in 1891, the post was moved 20 miles further up the river to be within British territory.

"The next people to enter the country for trading purposes were Messrs. Harper and McQuestion. They have been trading in the country since 1873 and have occupied numerous posts all along the river, the greater number of which have been abandoned. Mr. Harper is now located as a trader at Fort Selkirk, and Mr. McQuestion is in the employ of the Alaska Commercial Company at Circle City, which is the distributing point for the vast regions surrounding Birch Creek, Alaska. In 1882, a number of miners entered the Yukon country by the Taiya Pass; it is still the only route used to any extent by the miners, and is shorter than the other passes though not the lowest. In 1883, Lieutenant Schwatka crossed this same pass and descended the Lewis and Yukon Rivers to the ocean.

"The history of the Yukon District within recent years will be best described by the following extract from the annual report of the Deputy of the Minister of the Interior for the year 1895:

"In the year 1887 the Hon. Thos. White, then Minister of the Interior, authorized the organization of an expedition having for its object the exploration of that region of the Northwest Territories of Canada which is drained by the Yukon River. The work was entrusted to Dr. Geo. M. Dawson, now the Director of the Geological Survey, and Mr. Wm. Ogilvie, the well known explorer and surveyor. Dr. Dawson devoted the whole of that season, and Mr. Ogilvie a period covering nearly two years, to obtaining geological, topographical, and general information, chiefly respecting the tract of country lying adjacent to the 141st meridian of longitude, which by the Treaty of St. Petersburg is designated as the boundary line from the neighborhood of Mount St. Elias to the Arctic Ocean between Alaska and the adjoining possessions of the British Crown, which now form part of the Northwest Territories of Canada.

"The explorers found that in proximity to the boundary line there existed extensive and valuable placer gold mines, in which even then as many as three hundred miners were at work. Mr. Ogilvie determined, by a series of lunar observations, the point at which the Yukon is intersected by the 141st meridian, and marked the same on the ground. He also determined and marked the point at which the western affluent of the Yukon, known as Forty Mile Creek, is crossed by the same meridian line, that point being situated at a

distance of about twenty-three miles from the mouth of the creek. This survey proved that the place which had been selected as the most convenient owing to the physical conformation of the region, from which to distribute the supplies imported for the various mining camps, and from which to conduct the other business incident to the mining operations—a place situate at the confluence of the Forty Mile Creek and the Yukon, and to which the name Fort Cudahy has been given, is well within Canadian territory. The greater proportion of the mines then being worked Mr. Ogilvie found to be on the Canadian side of the international boundry line, but he reported the existence of some mining fields to the south, the exact position of which with respect to the boundry he did not have opportunity to fix.

"The number of persons engaged in mining in the locality mentioned has steadily increased year by year since the date of Mr. Ogilvie's survey, and it is estimated that at the commencement of the past season not less than one thousand men were so employed. Incident to this mineral development there must follow a corresponding growth in the volume of business of all descriptions, particularly the importation of dutiable goods, and the occupation of tracts of the public lands for mining purposes which according to the mining regulations are subject to the payment of certain prescribed dues and charges. The Alaska Commercial Company, for many years subsequent to the retirement of the Hudson's Bay Company, had a practical monopoly of the trade of the Yukon, carrying into the country and delivering at various points along the river, without regard to the international boundry line or the customs laws and regulations of Canada, such articles of commerce as were required for the prosecution of the fur trade and latterly of placer mining, these being the only two existing industries. With the discovery of gold, however, came the organization of a competing company known as the North American Transportation and Trading Company, having its headquarters in Chicago and its chief trading and distributing post at Cudahy. This company has been engaged in this trade for over three years, and during the past season dispatched two ocean steamers from San Francisco to St. Michael, at the mouth of the Yukon, the merchandise from which was, at the last mentioned point, transhipped into river streams and carried to points inland, but chiefly to the company's distributing centre within Canadian territory. Importations of considerable value, consisting of the immediately requisite supplies of the miners, and their tools, also reached the Canadian portion of the Yukon District from Juneau, in the United States, by way of the Taiy. Inlet, the mountain passes, and the chain of waterways leading therefrom to Cudahy. Upon none of these importations had any duty been collected, except a sum of \$3,248.80 paid to Inspector Constantine in 1894, by the North American Transportation and Trading Company and others, and it is safe to conclude, especially when it is remembered that the country produces none of the articles consumed within it except fresh meat, that a large revenue was being lost to the public exchequer under the then existing conditions.

"For the purpose of ascertaining officially and authoritatively the condition of affairs to which the correspondence referred to in the next preceeding paragraph relates, the Honourable the President of the Privy Council, during the spring of 1894, despatched Inspector Charles Constantine, of the North-

west Mounted Police Force, accompanied by Sergeant Brown, to Fort Cudahy and mining camps in its vicinity. The report made by Mr. Constantine on his return established the substantial accuracy of the representations already referred to. The value of the total output of gold for the season of 1894 he estimated at \$300,000, a very large sum considering the relatively short period to which mining operations are, by the nature of the climate, confined.

"The facts recited clearly establish—first, that the time had arrived when it became the duty of the government of Canada to make more efficient provision for the maintenance of order, the enforcement of the laws, and the administration of justice in the Yukon country, especially in that section of it in which placer mining for gold is being prosecuted upon such an extensive scale, situated near to the boundary separating the Northwest Territories from the possessions of the United States in Alaska; and, second, that while such measures as were necessary to that end were called for in the interests of humanity, and particularly for the security and safety of the lives and property of the Canadian subjects of Her Majesty resident in that country who are engaged in legitimate business pursuits, it was evident that the revenue justly due to the government of Canada, under its customs, excise and land laws, and which would go a long way to pay the expenses of government, was being lost for the want of adequate machinery for its collection.

"Accordingly in June last a detachment* of twenty members of the Mounted Police Force including officers was detailed for service in that portion of the Northwest Territories. The officer in command, in addition to the magisterial and other duties he is required to perform by virtue of his office and under instructions from the Department of Mounted Police, was duly authorized to represent where necessary, and until other arrangements can be made, all the departments of the government having interests in that region. Particularly he is authorized to perform the duties of Dominion lands agent, collector of customs, and collector of inland revenue. At the same time instructions were given Mr. William Ogilvie, the surveyor referred to as having, with Dr. Dawson, been entrusted with the conduct of the first government expedition to the Yukon, to proceed again to that district for the purpose of continuing and extending the work of determining the 141st meridian, of laying out building lots and mining claims, and generally of performing such duties as may be entrusted to him from time to time. Mr. Ogilvie's qualifications as a surveyor, and his previous experience as explorer of this section of the Northwest, peculiarly fit him for the task.

"As it appears quite certain, from the reports made by Mr. Ogilvie on his return to Ottawa in 1889, and from the report of Mr. Constantine, that the operations of the miners are being conducted upon streams which have their sources in the United States Territory of Alaska, and flow into Canada on their way to join the Yukon, and as doubtless some of the placer diggings under development are situated on the United States side of the boundary, it is highly desirable, both for the purpose of settling definitely to which country any land occupied for mining or other purposes actually belongs, and in order that

* The detachment was made up as follows:—Inspector Constantine, Officer Commanding Yukon Detachment N. W. M. Police; Inspector D. A. E. Strickland; Assistant Surgeon, A. E. Willis; 2 Staff Sergeants; 2 Corporals; 18 Constables

the jurisdiction of the courts and officers of the United States and Canada, for both civil and criminal purposes may be established, that the determination of the 141st meridian west of Greenwich from the point of its intersection with the Yukon, as marked by Mr. Ogilvie in 1887-88, for a considerable distance south of the river, and possibly also for some distance to the north, should be proceeded with at once. Mr. Ogilvie's instructions require him to go on with the survey with all convenient speed, but in order that this work may be effective for the accomplishment of the object in view the co-operation of the Government of the United States is necessary. Correspondence is in progress through the proper authorities with a view to obtaining this co-operation. It may be mentioned that a United States surveyor has also determined the points at which the Yukon River and Forty Mile Creek are intersected by the 141st meridian."

Since the date of the above report, Mr. D. W. Davis has been appointed collector of customs for the Yukon district.

"The business of the Department of the Interior having grown to such proportions that Inspector Constantine was no longer able to deal with it and discharge the numerous other duties assigned to him, Mr. Thos. Fawcett, Dominion Topographical Surveyor, has been appointed gold commissioner, surveyor and general agent of Minister of the Interior for the district. Accompanying him and acting under his instructions are two Dominion land surveyors, Jas. Gibbons and E. D. Bolton, with their parties."

In a report sent in by Mr. Ogilvie in January, 1896, it is stated that the police are making a most favorable impression and that the general policy of the government in connection with the district is commended.

RESOURCES OF THE DISTRICT.

The following account and description of the Yukon basin is compiled from several reports sent in by Mr. Ogilvie and may without hesitation be accepted as absolutely impartial and as correct as any description of a partially surveyed district may be made :

AGRICULTURAL CAPABILITIES OF THE YUKON BASIN.

The agricultural capabilities of the country along the river are not great, nor is the land which can be seen from the river of good quality.

When we consider further the unsuitable climatic conditions which prevail in the region it may be said that as an agricultural district this portion of the country will never be of value.

My meteorological records show over eight degrees of frost on the 1st of August, over ten on the 3rd, and four times during the month the minimum temperature was below freezing. On the 13th the minimum temperature was 16°, and all the minimum readings for the remainder of the month were below freezing.

Along the east side of Lake Bennet, opposite the Chilkoot or western arm, there are some flats of dry gravelly soil, which would make a few farms of limited extent. On the west side, around the mouth of Wheaton River, there is an extensive flat of sand and gravel, covered with small pine and spruce of stunted growth. The vegetation is poor and sparse, not at all what one would

lesire to see on a place upon which he was thinking of settling. At the lower end of the lake there is another extensive flat of sandy soil, thinly clad with small poplars and pines. The same remarks apply to this flat as to that at Wheaton River,

Along the westerly shore of Tagish Lake there is a large extent of low, swampy flats, a part of which might be used for the production of such roots cereals as the climate would permit.

Along the east side the surface appeared higher and terraced, and is probably less suited to the requirements of the agriculturalist. Along the head of the river, for some miles below Marsh Lake, there are flats on both sides, which would, as far as surface conformation goes, serve for farms. The soil is of much better quality than any heretofore seen, as is proved by the larger and thicker growth of timber and underbrush which it supports. The soil bears less the character of detritus, and more that of alluvium, than that seen above.

As we approach the canyon the banks become higher and the bottom lands narrower, with some escarpments along the river. At the canyon the bank on the west side rises two hundred feet and upwards above the river, and the soil is light and sandy. On the east side the bank is not so high, but the soil is of the same character, and the timber small and poor, being nearly all stunted pine.

Between the canyon and Lake Labarge, as far as seen from the river, there is not much land of value. The banks are generally high, and the soil light and sandy. At the head of the lake there is an extensive flat, partly covered with timber, much larger and better than any seen above this point. Poplar eight and ten inches in diameter were not uncommon, add some spruce of fifteen and sixteen inches, and many of upwards of a foot in diameter, were also noticed. The soil, however, is light, and the vegetation, especially the grass, thin and poor.

Some miles down the lake an extensive valley joins that of the lake on the west side. This valley contains a small stream. Around this place there is some land that might be useful, as the grass and vegetation is much better than any seen so far.

On the lower end of the lake, on the west side, there is a considerable plain which might be utilized; the soil in parts of it is good. I saw one part where the timber had been burned some time ago; here, both the soil and vegetation were good, and two or three of the plants seen are common in this part of Ontario, but they had not the vigorous appearance which the same plants have here.

Northward from the end of the lake there is a deep, wide valley, which Dr. Dawson has named "Ogilvie Valley." In this the mixed timber, poplar and spruce, is of a size which betokens a fair soil; the herbage too, is more than usually rich for this region. This valley is extensive, and if ever required as an aid in the sustenance of our people, will figure largely in the district's agricultural assets.

Below the lake the valley of the river is not as a rule wide, and the banks are often steep and high. There are, however, many flats of moderate extent along the river, and at its confluence with other streams. The soil of many of these is fair,

About forty miles above the mouth of the Pelly River there is an extensive flat on both sides of the Lewes. The soil here is poor and sandy, with small open timber. At Pelly River, there is a flat of considerable extent on which the ruins of Fort Selkirk stand. It is covered with a small growth of poplar and a few spruce. The soil is a gravelly loam of about eight inches in depth, the subsoil being gravel, evidently detritus. This flat extends up the river for some miles, but is all covered thickly with timber, except a small piece around the site of the fort.

On the east side of the river there is also a large plateau, but it is two or three hundred feet above the river, and the soil appears to be poor, judging from the thinness and smallness of the trees. This plateau seems to extend up the Pelly for some distance and down the Yukon for ten or twelve miles. As seen from the river it reminds one of the slopes and hills around Kamloops in British Columbia, and like them, though not well suited to agriculture, might yield fair pasturage should such ever be required.

A serious objection to it, however, for that purpose, if it is not watered on the surface by ponds, is that the river is difficult of access, as the plateau on the side towards the river is bounded by a perpendicular basalt cliff, which, without artificial arrangement, would completely bar approach to the water. This cliff is more than two hundred feet high at the confluence, and becomes lower as we descend the river until, at the lower end, it is not more than sixty to eighty feet high.

Between Pelly and White Rivers there are no flats of any extent. At White River there is a flat of several thousand acres, but it is all timbered, and the surface of the soil is covered with a thick growth of moss, which prevents the frost ever leaving the ground. This has so preserved fallen timber and the foliage of the trees that much of it is lying on the surface nearly as sound as when it fell. On this account the vegetable mould on the gravel is thin and poor. The standing timber also bears witness to the coldness of the soil by its slow and generally small growth. A few trees near the bank, where the sun can heat the soil, are of fair size, but further back they are generally small.

At Stewart River there is another large flat to which the same general remarks are applicable. Thence to the site at Fort Reliance, there are no flats of any importance. High above the river in some places there are extensive wooded slopes, which, when cleared, would be well suited for such agricultural purposes as the climate would permit.

At Fort Reliance there is a flat of probably 1,500 acres in extent; but although Messrs. Harper & McQuestion lived there for some years, it appears they never made any agricultural experiments, believing that they would be futile.

At the Forty Mile River there is a flat of about four or five hundred acres in area, on which the soil is of better quality than on many of the other places mentioned. On this Messrs. Harper & McQuestion erected their dwelling and store-houses. They gave it as their opinion that only very hardy roots would live through the many cold nights of the summer months, and that the season is so short that even if they survived the cold they would not attain a size fit for use.

The river is not generally clear of ice until between the 25th of May and the first of June, and heavy frosts occur early in September, and sometimes earlier.

At the boundary there are two flats of several hundred acres each, one on the west side, the other three miles above it on the east side. Both of these are covered with poplar, spruce and white birch, also some willow and small pine.

In making preparations for the foundations of our house at our winter quarters near the boundary we had to excavate in the bank of the river, and in an exposed place where the sun's rays could reach the surface without hindrance from trees or other shade we found the depth to the perpetually frozen ground to be not more than two feet. In the woods where the ground was covered with over a foot of moss the frozen ground is immediately below the moss. On this the timber is generally small, and of very slow growth, as evident from the number of annual rings of growth. I have seen trees of only three or four inches in diameter which were upwards of one hundred and fifty years old.

It is difficult to form an estimate of the total area of agricultural land seen, but it certainly bears a very small proportion to the remainder of the country. I think ten townships, or 360 square miles, would be a very liberal estimate for all the places mentioned. This gives us 230,000 acres, or, say 1,000 farms. The available land on the affluents of the river would probably double this, or give 2,000 farms in that part of our territory, but on the most of these the returns would be meagre.

Without the discovery and development of large mineral wealth it is not likely that the slender agricultural resources of the region will ever attract attention, at least until the better parts of our territories are crowded.

In the event of such discovery some of the land might be used for the production of vegetable food for the miners; but, even in that case, with the transport facilities which the district commands, it is very doubtful if it could compete profitably with the south and east.

TIMBER FOR USE IN BUILDING AND MANUFACTURING.

The amount of this class of timber in the district along the river is not at all important. There is a large extent of forest which would yield firewood and timber for use in mines, but for the manufacture of lumber there is very little.

To give an idea of its scarceness, I may state that two of my party made a thorough search of all the timbered land around the head of Lake Bennet and down the Lake for over ten miles, and in all this search only one tree was found suitable for making such plank as we required for the construction of our large boat. This tree made four planks 15 inches wide at the butt, 7 at the top, and 31 feet long.

Such other plank as we wanted had to be cut out of short logs, of which some, 10 to 14 inches in diameter, and 10 to 16 feet long could be found at long intervals. The boat required only 450 feet of plank for its construction, yet some of the logs had to be carried nearly 200 yards, and two saw pits had to be made before that quantity was procured, and this on ground that was all thickly wooded with spruce, pine, and some balsam, the latter being generally the largest and cleanest trunked.

These remarks apply to the timber until we reach the lower end of Marsh Lake. On the head of the river, near the lake, some trees of fair size, 12 to 14 inches in diameter, and carrying their thickness very well, could be got, but their number was small, and they were much scattered.

At the canyon the timber is small and scrubby; below it there were a few trees that would yield planks from 7 to 10 inches wide, but they have been nearly all cut by the miners, many of whom made rafts at the head of Lake Bennet, floated down to White Horse Rapids, and there abandoned them for boats which they then built.

The great bulk of the timber in the district suitable for manufacture into lumber is to be found on the islands in the river. On them the soil is warmer and richer, the sun's rays striking the surface for a much longer time, and more directly than on the banks.

At the confluence with the Pelly, on the east side of the river, there is a grove of spruce, from which some very nice lumber could be made, and on the islands below this, much of the same class of timber exists. Near White and Stewart Rivers there is a good deal of nice clean timber, but it is small. It is said there is more good timber on Stewart River in proportion to the ground wooded than on the main river.

Between Stewart River and the boundary there is not so much surface covered with large trees as on many of the flats above it, the valley being generally narrow, and the sides steeper than higher up the river. This, of course, precludes the growth of timber.

To estimate the quantity of timber in the vicinity of the river in our territory would be an impossible task, having only such data as I was able to collect on my way down. I would, however, say that one-fourth of the area I have given as agricultural land would be a fair conjecture. This would give us two and a half townships, or ninety square miles, of fairly well timbered ground; but it must be borne in mind that there is not more than a square mile or so of that in any one place, and most of the timber would be small and poor compared with the timber of Manitoba and the easterly part of the North-west Territories.

At the Boundary Line I required, as has already been explained, a tree 22 inches in diameter at the ground on which to erect my transit. An exhaustive search of over three square miles of the woods there, though showing many trees of convenient size for house logs, and many for small clean planks, showed only one 18 inches in diameter at a distance of five feet above the ground.

It may be said that the country might furnish much timber, which, though not fit to be classed as merchantable, would meet many of the requirements of the only industry the country is ever likely to have, viz., mining.

The timber fit for buildings and lumbering is fast disappearing along the river, and in a few years there will be none left near here. There is a portable saw-mill at Fort Ogilvie—100 miles above this—and one here, which yearly cut a good deal of lumber. Were all this utilized in Canada nothing might be said of it, but some of it goes down the river into American territory, in addition to which a good deal of wood and logs are cut on our side and floated into Alaska where it is sold. Some men make a business of this, and on this

at least the department might collect dues. There is very little good timber on the American side of the line, hence the demand for our timber.

MINERAL RESOURCES.

(FROM OGILVIE'S REPORTS.)

The gold heretofore found and worked in this district has been all placer gold. Search was made for it occasionally by us along the lakes and river as we descended, but with the exception of the colors mentioned at the quartz ledge on Lake Bennet, none was found until after we had passed Lake Labarge, about six miles below which, at a sharp, short bend in the river we found in a bar many colors to the pan. It may be said generally that colors are found anywhere on the river between that point and the boundary, and also on the tributaries which have been prospected.

It is probable that we have not less than 1,400 miles of stream in our part of the district, upon all of which gold can be found.

About eighteen miles below the Teslinto I saw the first place that had been worked for gold. Here a hut had been erected, and there were indications that a party had wintered there. Between it and Big Salmon River, six other locations were met with. One of them named Cassiar Bar was worked in the season of 1896, by a party of four, who took out \$6,000 in thirty days. They were working there when I passed in 1887, but stated that all they could get that season was about \$10 per day, and that it was then (3rd August) about worked out. At the time of my visit they were trying the bank, but found the ground frozen at a depth of about three feet, though there was no timber or moss on it. They had recourse to fire to thaw out the ground, but found this slow work.

Two of this party subsequently went down to Forty Mile River, where I met one of them. He was a Swede, and had been gold mining for upwards of twenty-five years in California and British Columbia. He gave me his opinion on the district in these words: "I never saw a country where there was so much gold, and so evenly distributed; no place is very rich, but no place is very poor, every man can make a 'grub stake' (that is enough to feed and clothe him for a year), which is more than I can say of the other places I have been in."

In conversation with Mr. T. Boswell, who, as already stated, had prospected the Teslinto, or Newberry River, in the summer of 1887, I learned that the whole length of the river yielded fine gold, generally at the rate of \$8 to \$10 per day: but as the miners' great desideratum is coarse gold, they do not remain long in a country in which only fine gold is found—generally no longer than is necessary to make a "grub stake," unless gold is in unusually large quantities. Mr. Boswell therefore went to the lower part of the river, having heard the reports of rich finds.

Stewart River was the first in the district on which mining to any extent was done. In 1886 there was quite a number of miners on it engaged in washing gold and they all appear to have done fairly well. Their exact number I could not ascertain.

I have heard the amount of gold taken from off Stewart River in 1885 and 1886 estimated at various amounts. One estimate was \$300,000, but this

must be excessive. The highest amount I heard as representing one man's earnings was about \$6,000. This may be true, as many agree that \$30 per day, per man, was common on many of the bars of the river, and instances of as high as \$100 per day having been earned were spoken of.

The only mining done on Stewart River was on the bars in the river; the bench and bank bars were all timbered and frozen, so that to work them would entail a resort to hydraulic mining, for which there was no machinery in the country.

During the fall of 1886, three or four miners combined and got the owners of the "New Racket" steamboat to allow the use of her engines to work pumps for sluicing with. The boat was hauled up on a bar, her engines detached from the wheels, and made to drive a set of pumps manufactured on the ground, which supplied water for a set of sluicing boxes. With this crude machinery, in less than a month, the miners cleared \$1,000 each, and paid an equal amount to the owners of the boat as their share.

Forty Mile River is the only river in the district on which, up to the fall of 1888, coarse gold had been found, and it may be said that much of it can hardly claim that distinctive title. The largest nugget found was worth about \$39. It was lost on the body of a miner who was drowned at the canyon. Several other nuggets of much less value have been found, but the number of pieces which one could call "nugget," are few.

The miners term Forty Mile a "bed-rock" creek—that is, one in the bed of which there is little or do drift, or detrital matter, the bottom of the river being bed-rock. In many places this rock has been scraped with knives by the miners, in order to gather the small amount of detritus and its accompanying gold.

Very little of the gold on this creek was found in Canadian territory, the coarsest gold being found well up the river. The river had been prospected in 1887 for upwards of one hundred miles, and gold found all the way up. The great point with the miner is to find where the gold comes from. To do this he has to reach a point on the river where there is none; then he knows he has passed the source, and will search in side valleys and gulches. The theory seems to be that the gold is stored up somewhere and dribbled out along the river.

Pieces of gold-bearing quartz had frequently been picked up along the river in the shallow drift, but none had been found in place, nor did it appear to me that much search had been made for it. Near the mouth of the river there is an extensive flat of detrital matter through which a couple of small creeks flow. This is all said to be gold-bearing, and, it was thought, would pay well for sluicing. Accordingly, a couple of claimants had staked off claims at the mouth of the creeks, and intended to try sluicing in the season of 1888. I have not heard how the venture succeeded.

Stewart River was pretty well worked for two seasons, 1885-86, by about forty men, some of whom made at least \$5,000. Assuming that they averaged half that amount, we have \$100,000 as their earnings. Forty-Mile River, the only other stream from which any large quantity has been taken was worked in the summer of 1887 by about three hundred men, many of whom spent only a few weeks on the river, some only a few days. The statement made by those

of whom I inquired was that all who worked on the river for any length of time made a "grub stake." Putting this at the lowest value I placed on it, \$450, and assuming that two hundred and fifty men made each this sum, we have \$112,500 as the amount taken out on this stream. I have heard the sum placed at \$130,000.

All the gold taken from the other streams by prospectors would not amount to more than a few thousand dollars, so that it is probable the total amount taken out of the whole district is in the vicinity of a quarter of a million dollars, of which about half was taken out in our territory.

Very rich placer diggings are now being worked on the creeks flowing into Sixty Mile, part of which are supposed to be in Canada. I shall be able to say definitely when I produce the line so far where they are and how much we have of them.

Except in the vicinity of Forty Mile there appears to be nothing doing in the way of quartz prospecting.

Last season good placer mines were found on the Hootalinqua—Teslin of Dawson—with coarse gold in them, and there will probably be a lot of claims worked there next season. Several miners were wintering there to commence operations early in the spring. A great deal of improvement has been introduced in the working of placer diggings, which has much increased the output. The miner instead of putting in the winter months in the town and saloons remains on his claim all winter, cutting wood in the earlier months, with which he builds fires and thaws the frozen gravel, piling it up to be washed as soon as the flow of water in the spring will permit. In this way the work is more than doubled, but as the supply of wood is very limited, except on the main river this cannot be done. Had the season been more favorable I would have visited Glacier and Miller Creeks which were generally supposed to be in Alaska, but are found to run in Canada for some distance. They are the two richest creeks yet found on the Yukon and are both tributaries of Sixty Mile River. Both creeks are fully located and worked, each claim being 500 feet along the creek and the width of the valley or creek bed. There are nearly 100 claims, all of which pay well. One on Miller Creek I understand will yield 75 to 80 thousand dollars this season, and the owner will net, it is said, between 40 and 50 thousand dollars. He took out, it is reported, nearly half that sum last year off the same claim, and expects to do equally well next year. This is much the richest claim yet found, but all on these creeks do well. There are many other creeks in this vicinity yet to be prospected and some will I have no doubt, pay well. Gold is found all along the valley of Sixty Mile River, and under more favorable conditions, both mercantile and climatic, it would yield good results to large enterprises. The mercantile conditions will improve; the climate is a serious difficulty but will be surmounted in time I believe. Along the last 10 or 12 miles of this line I ran, the mountains consist principally of quartz and schists, which, no doubt, originally held the gold found in the valleys and doubtless hold some yet. Several men have taken to quartz prospecting and found indications which I will dwell on later. I believe we are on the eve of some magnificent discoveries.

General Information.

Who Should Go?—In his report to the government Mr. A. E. Wills, assistant surgeon to the Mounted Police in the Yukon district, gives many valuable hints not to be found elsewhere. Among these is one on who should be selected for Police duty. What applies to policemen in that region applies equally to everyone else. This hint should be duly considered by everyone intending to try their luck in the Klondyke. It is as follows:

"Men should be sober, strong and healthy. They should be practical men, able to adapt themselves quickly to their surroundings. Special care should be taken to see that their lungs are sound, that they are free from rheumatism and rheumatic tendency, and that their joints, especially knee joints, are strong and have never been weakened by injury, synovitis or other disease. It is also very important to consider their temperaments. Men should be of cheerful, hopeful dispositions and willing workers. Those of sullen, morose natures, although they may be good workers, are very apt, as soon as the novelty of the country wears off, to become dissatisfied, pessimistic and melancholy."

Miners' Cabins.—The same authority thus describes the miners' cabins: "The regulation miners' cabin is 12 feet by 14 feet, with walls six feet and gables 8 feet in height. The roof is heavily earthed and the cabin is generally very warm. Two, and sometimes three or four men will sometimes occupy a house of this size. The ventilation is usually bad. Those miners who do not work their claims during the winter confine themselves to these small huts most of the time.

Very often they become indolent and careless, only eating those things which are most easily cooked or prepared. During the busy time in summer when they are "shovelling in," they work hard and for long hours, sparing little time for eating and much less for cooking. This manner of living is quite common among beginners, and soon leads to debility and sometimes to scurvy. Old miners have learned from experience to value health more than gold, and they therefore spare no expense in procuring the best and most varied outfit of food that can be obtained.

In a cold climate such as this, where it is impossible to get fresh vegetables and fruits, it is most important that the best substitutes for these should be provided. Nature helps to supply these wants by growing cranberries and other wild fruits in abundance, but men in summer are usually too busy to avail themselves of these."

It might here be stated that since the above report was sent in, it has become the rule for practically everybody to work their claims in winter as well as in summer. Yet it should be borne in mind that, owing to the high latitude, the winter day is very short, so that, at the best, more than half the time must be spent in the cabins. According to Mr. Ogilvie, the method adopted by miners for working in winter is as follows: "They make fires on the surface, thus thawing the ground until the bed-rock is reached, (bed-rock simply means that drift or detrital matter goes no further down) then drift and tunnel; the product is brought to the surface and heaped in a pile until spring when water can be obtained."

Notes on the Climate.—As is well known the climate is extreme in the Yukon basin. The thermometer in winter often registers as low as 70 below zero, while in summer it runs up to 110 above. As a rule winter sets in about the middle of September and continues until the beginning of June, and is decidedly cold."—Ogilvie. However, the average cold in winter is not nearly so great as here indicated. The following shows the mean minima in the months stated, as recorded by Mr. Ogilvie in 1887-8, at a point just east of the 141st meridian on Yukon river: For October ('87) the mean minimum was 18°; for Nov., 5°; for Dec. 33°; for Jan. ('88), 25°; for Feb. 16°. The thickness of ice on the river was at stated times, that season, as follows: Ice set Nov. 15th, thickness of ice Dec. 1st 14½ inches; Jan. 3rd 40½ inches; Feb. 3rd 48 inches; March 3rd 48½ inches. As Ogilvie on the 3rd of March made preparations to start for the McKenzie, his observations for that season go no further. In this connection it is interesting to give the remarks of Assistant Surgeon A. E. Wills on the climate, as follows:

"The climate is wet. The rainfall last summer was heavy. Although there is almost a continuous sun in the summer time evaporation is very slow owing to the thick moss which will not conduct the heat, in consequence the ground is always swampy. It is only after several years of draining that ground will become sufficiently dry to allow the frost to go out and then only for a few feet. During the winter months the cold is intense with usually considerable wind.

A heavy mist rising from open places in the river settles down in the valley in calm extreme weather. This dampness makes the cold to be felt much more and is conducive to rheumatic pains, colds, etc."

Retail Prices at Dawson City.—Considering the distance supplies of all descriptions have to be brought to Dawson City, that wonder town of the frozen north, which by this time has about 4,000 of a population, prices of all kinds of necessities may be said to rule surprisingly low, beef and fresh meat of all kinds excepted, which up to this time is scarcely less than \$1.00 per pound, when at all procurable. Many are inclined to believe that starvation is in store for the district this coming winter, because so many are rushing there without the required means. If it be so, it will not be through the prohibitive price of supplies, but solely because there will be none to sell. Merchants have but a short season each year in which to bring in their goods and

transportation facilities being sadly lacking, it is quite impossible for them to provide the supplies required by the ever increasing army of gold-hunters, so many of whom, as previously stated, carry little or no supplies, but are wholly dependent on the traders in the camp. It is on this account that the advice is never too often repeated: do not start for the Yukon unless you can take with you one year's supplies for yourself, and bear this in mind also, that what would be ample at home will by no means suffice you as daily rations in the frozen north. The publishers can not guarantee that the appended price list of store goods at Dawson City is strictly correct, but these were the ruling prices early in July, 1897:

Tea per lb \$1; coffee per lb 50 cents; sugar per lb 50 cents; eggs \$1.50 per doz, fairly good eggs \$2 per doz.; butter \$1.50 per roll; rice per lb 25 cents; beans per lb 10 cts; flour per 100 lbs \$12; bacon per lb 40 cents; moose meat per lb 65 cents; salmon, each \$1.50; potatoes per lb 25 cents; turnips per lb 15 cents; dried fruit per lb 35 cents; canned fruit per can 50 cents; canned meat 75 cents; lemons per doz \$2.40; oranges per doz \$6; tobacco per lb \$1.50; coal oil per gallon \$1.50; underwear, per suit \$5 to \$7.50; overalls \$1.50; shoes \$5.00; rubber boots \$10 to \$15; shovels \$2.50; picks \$5; rough lumber per 1000 feet \$150.

Hints on Pack Travel.—It is a very important matter to have the supplies properly packed to guard against damage by water and rough handling. The packs are made up to weigh about seventy-five pounds. First they are put in canvas bags, and then are wrapped securely in oil cloth. Should they be exposed to rain, dropped in the wet snow, or even immersed for a short time in the river, practically no damage will result.

For a rocky country the mule is preferable to the horse, for he will live where a horse will starve, he will carry a much heavier load, and is more sure footed. In a swampy country the horse is preferable as his larger hoof prevents him from sinking in the mud, and if he gets mired he will struggle out of the difficulty, which the mule will not do.

The best pack horses to use are the small mountain bred ponies that will carry from 225 to 250 lbs. The average mule will carry from 300 to 350 lbs. The aparaeo is far preferable to the pack saddle and if properly looked after, will prevent the backs of the animals from getting sore. A day's journey for loaded pack animals, should be not more than 12 or 15 miles. The journey should be made early in the morning before the flies get bad, and the animals turned out to rest and feed by 10 a.m. Smudges should be made to enable the animals to rest in the smoke but they must be watched or the animals will, when the flies are bad, get into the fire and burn themselves badly.

Latest Information on the Routes.

THE ST. MICHAEL'S ROUTE.

(OGILVIE'S LATEST REPORT.)

It is a common occurrence to be delayed hours, and even days, on bars and on what is known as the Yukon flats, just below Circle City. Not once is there difficulty of this kind found in our part of the river, but in the Alaska portion it is an every day occurrence for a steamer to stick. I know of one steamer that stuck for three weeks, another that was on a sand bank for four or five days till another steamer came along and bunted her off, and then stuck on the same bar herself—and I don't know how long she stayed there.

The navigation of the Yukon river in the upper part is open from May till the middle of October; while at the mouth it is not open before the 1st July, and navigation does not last longer than the 1st of October—that is only from two and a half to three months—and it takes river steamers fourteen, fifteen and sixteen days to get up the river to Dawson. St. Michael's the headquarters of the river boats, is 80 miles from the mouth of the river, and only in calm weather can the steamers cross that bit of open sea.

The vessels that are engaged at present navigating the Yukon. The Alaska Commercial Company have two large steamers, the Alice and the Bella, besides smaller ones named Margaret and the Victoria, last being named after Queen Victoria, as it was built in the Diamond Jubilee year and launched about the time of the Jubilee. There were also two other small steamers belonging to the company running at the mouth of the river. The North American Transportation and Trading Company have three steamers and contemplate putting on two more next summer.

“THE DALTON TRAIL.”

J. J. McArthur, who has been engaged exploring the trails leading from the Chilcat inlet west, known as the Dalton trail, was out in the interests of the government of Canada and believes these trails are practicable, but will require a great deal of improvement before a large party can go over, as the trails would be liable to get cut up badly when any great amount of stuff was freighted over.

In speaking of the Dalton trail recently, Mr. Ogilvie said :—

Of the Dalton trail I know nothing by personal observation—only by report. I had an interview with Mr. Dalton, from whom the trail is named, in 1896, and I have also talked with Mr. McArthur, our surveyor, who has spent

some time in that district recently. Of course the substance of his report cannot be divulged at present.

The summit of this trail is about forty-five miles from the coast and 3,000 feet above the sea, the watershed is about 75 miles from the coast and Dalton's trading post 100 miles from the coast. Thence to the Pelly is 200 miles further. This route passes over a nice undulating plain, well timbered in the valleys and with grass on the slopes, but not enough to feed any number of animals. The first 34 miles of the Dalton trail is in disputed territory, the rest of it in Canada, just as is the case with the Dyea and Skagway trails.

Mr. W. Ogilvie's latest report on the Taku route is as follows :—

In 1894 and 1895 I was employed to go in that portion of the country. Taku Inlet is something about eighteen miles long, and leads up to a glacier of much greater size and affording considerable more danger to boats than the much talked of Muir glacier in Alaska. The ice is cast off in great avalanches and is continually breaking off. I have visited the Muir glacier and have never seen a breaking take place ; whereas in Taku, where I remained for three weeks, I saw large bodies of ice break away every day, which in every case create a surge in the water that is dangerous to boats even to so great a distance as three miles away from the glacier. This Taku river extends for sixty miles. There are enormous gravel bars which render it impossible for steamboats to navigate it, although it is said they might during the months of June or July—or during the warm weather. From the forks we go up by the left-hand branch about nine miles over to Tagish lake. Along this route we meet with no very great difficulties, and keep up about nine miles, going past the Silver Salmon creek. In regard to this route I may say, however, that I have not examined any considerable portion of it, but civil engineers are now exploring it and their reports will of course be made public.

From the summit there will be no difficulty in constructing a road to the head of Teslin lake. We have here then, two roads—one of them (Stikine) offering almost perfect advantages with the additional greater one that it may be called an all Canadian route if we choose to so name it.

Mr. Ogilvie, on November 5th, in Victoria, gave the following up-to-date sketch of the Stikine-Teslin lake route :—

Leaving Victoria by any one of the steamers which run from here, we make our way through the well known Seymour narrows, taking care to time that passage to reach there at a suitable stage of the water, for it is well known that no ship can go through except at either high or low tide. In a few days, according to the capacity of the steamer, we reach Port Simpson, the most northerly seaport in British Columbia or Canada on the Pacific ocean. If we wish to make our way in British bottoms we can here take the river steamers and proceed from Port Simpson to Wrangel, it being about 170 miles from the former point to the mouth of the Stikine river ; proceeding up that river about 150 miles, or perhaps a little less distance, as will be proved when the surveys

are made for the proposed railway facilities. That distance occupies sixty hours or a little more. From the head of the Stikine, the road would follow through an undulating country which presents no obstacles to railway construction, and for the greater part of the distance of 150 miles is pretty well covered with timber. I would mention, however, that the natural food supply available for horses will not be sufficient for any great number. It might be said that enough would be found, for say, two hundred head, but any great number would soon eat off what there is, and it will be necessary that such arrangements shall be made as will render it possible for the natural supply to be increased by importing sufficient for any number over and above that.

Arrived at the head of Teslin lake, we produce our whipsaws and commence to get out lumber for our boats. Now, whipsawing has been said to be one of the inventions of Satan, and when two are doing that work it is necessary for success that one shall push and the other shall pull; but when, as is too often the case with the tenderfoot, both either pull or push, there is likely to be some enquiry from the man who is above what the other fellow is doing, and there may be some uncomplimentary language indulged in, and the man below ask his partner to come down and have it out. And if the same man below gets a grain of sawdust in his eye during the progress of the quarrel there will be quite a sulphurous atmosphere for some time. After a while though in spite of these difficulties the boat will be finally got ready, and then commences the trip down the Teslin lake, which is 80 miles long and bounded on both sides by high mountains. This distance is of course only as I have been told. We arrive at the head of the Hootalinqua after traversing the lake. This river is marked on the map as being the Teslin, which is the Indian name for a fish which is caught in the lake. The Hootalinqua river is about 125 miles long—or a total distance from Victoria to Dawson City by way of the Stikine, Teslin and Hootalinqua route, of 1,600 miles. At two points, one near the head of the river and one quite a distance below, there are obstacles in the way of steamboat navigation at certain times of the year, during certain stages of the river. A few miles below, the river broadens out into innumerable channels until at last, at the lower end, it widens to two and a half miles. If one of these channels were deepened out, a sufficient depth of water could be obtained to allow a free passage for a steamer drawing three or four feet without difficulty.

The Fort Wrangell, Glenora and Lake Teslin Transportation Company "will have a line of steamers plying between Puget Sound ports to head of navigation on Stikine river, a distance of about 130 miles from Fort Wrangell, and then pack trains across the portage from the river to Teslin lake. One thousand horses will be utilized in the service, and on Teslin lake and water course to Dawson City a series of boats will be put on, which are now in course of construction. The company is in a position to book passengers from any part of the world direct to Dawson City, and the cost from England, first-class, will be \$1,000, and second-class \$700, which will also include the transportation of supplies, etc., for a year."

Arrangements have been made by which horses can be taken through the Alaskan Territory along the Stikine in bond.

E. J. Duchesnay, C. E., who was sent up to examine the Stikine Route by the C. P. Ry. Co., left Vancouver on September 14th, and returned in 7 weeks, having been delayed a week waiting for a steamer at Wrangel. He went up the Stikine by canoe and then walked to Teslin Lake. The weather was good and no difficulties were encountered so that it would seem that railroad building will be easy. On his way in Mr. Duchesnay overtook Mr. Jennings, the surveyor sent out by the Dominion government to ascertain the most feasible route to Yukon. He returned in company with Duchesnay after sending two parties, one in charge of a son of William Ogilvie, the well known surveyor, to explore the Hootalinqua River. On his trip Mr. Duchesnay met a number of miners en route to Klondyke and he expressed the opinion that all of them will get to Dawson City this season.

Frank York, of Victoria, who is building a steamer to ply on Teslin Lake, says the journey from there to Dawson City can be made by steamer in three days, so if a railway is built by the C.P.R. between Stikine River and Teslin Lake, the journey can be accomplished with ease.

R. H. Hall, of the Hudson's Bay Company, authorizes the statement that a new boat will be built by his company at once for service on the Stikine River, and will be ready in time for the spring rush. In addition to the new boat, the Caledonia, extensive alterations of which have been decided upon, will also be used in the company's traffic and the company are also holding themselves in readiness to compete for the general transportation trade, which will offer in the new year. Mr. Hall, who had years of experience in the northern regions, is an enthusiastic advocate of an all-Canadian route via Stikine and Teslin Lake. He says that if the railway projected be not completed in time, it would be a comparatively easy matter to accommodate the rush by building a wagon road from Glenora to the lake, and no doubt something will be done in this direction. Wharfage facilities at Wrangel will also be increased, and the company are generally making arrangements to provide for the demands of travel by this route.

Stikine navigation opens about 15th May and can be kept open seven months in the year. Mr. Robert Kerr, traffic manager of the C.P.R. west, says: "We are putting on a fleet of steamers of our own from Vancouver, running to Dyea and Wrangle, to accommodate those going over the passes or going over the lower route to the Stikine River. We are purchasing the boats in the old country where they are now being constructed. The boats will have a tonnage of about 3000 tons each and will be in keeping with our local service on the Pacific, being well fitted to carry freight and passengers. No expense will be spared to meet the requirements of travellers. We will also have a railway line, narrow gauge, from Glenora, the head of navigation on the Stikine River to Teslin Lake, about 120 miles, from which point it is easy sailing or rafting into Dawson. It is slow but sure from Teslin Lake down to the Klondyke metropolis. I expect the rush will start early in March by which time we will be well prepared for it."

It is believed when the Railway is built that Dawson could be reached in

10 days from Victoria. The only steamer plying at present on the Stikine River is the "Alaska," Captain, J. D. Tackerberry.

Mr. N. Wallingford, of Seattle, and a number of British Columbians intend to run a line of steamers to Wrangel,—from there operating river steamers to Telegraph Creek—whence pack trains will carry goods to Teslin Lake and there connect with steamers which the company will put on the lakes.

In November Mr. J. S. Bowker, of Glenora, on the Stikine River, made the trip from Glenora to Teslin Lake and return in twenty days, including four days spent at the lake, not bad time. And when in addition it is learned that the trail runs through a country affording feed for thousands of head of stock, and in which hundreds of ranchers could make excellent livings, it will be seen that Mr. John S. Bowker has good reason to speak in terms of warm commendation in regard to the Stikine route. He says, too, that game of all kinds is abundant, and on his return trip he killed a caribou which provided more fresh meat than could be used by the party. As a railway route, Mr. Bowker considers the Stikine most feasible, and now that a "cut off," saving about twenty miles, has been discovered, he believes it to be the best sleighing route known.

The York party are now engaged in widening this portion of the trail to make it more suitable for sleighing, and the only obstacle, the Teletan river, is so easy of navigation as to be hardly deserving of being called an obstacle at all. He says that he will establish a pack train from some point near the head of navigation on the Stikine to Teslin, which will be sufficient to convey the goods of a great number of those who will go in that way next spring.

Mr. A. F. Cotton, P. L. S., accompanied Mr. Bowker in exploring the Stikine River route as a winter way into the upper river country, and incidentally they found very rich mining ground on the upper Hootalinqua. During the absence of the party of which he was a member, Mr. Cotton says they have located a route hitherto untravelled, and taking in several streams that are not delineated on any existing maps. By these streams and a crossing of Teletan River, he states that it is possible to reach Dawson with only six miles of land travel from Teslin Lake; and so convinced is he of the practicability of the new trail that he is willing to take two tons of provisions into Dawson this winter, counting upon making delivery of them within thirty days after leaving Victoria.

John Hyland, of Telegraph Creek, says:—(Victoria Colonist)—From Telegraph Creek to Lake Teslin is roughly 153 miles, and the chief difficulty to be encountered in the building of a first-class trail is the marsh land scattered at infrequent intervals and necessitating corduroying. This swamp land is not continuous by any means, in fact the longest strip would not extend for more than three miles or thereabouts, but while it is there to wear out the pack animals satisfactory results cannot be obtained. In the work of corduroying the trail, builders will have the advantage of an abundant supply of timber, but as some of it will have to be transported to the marsh land that is not

timbered the fact emphasises the urgency of immediate action as anyone can see the propriety of getting the timber out during the winter when it can be cheaply and conveniently transported by sleighs to where it will be required by the road builders. Two bridges will also be required, the first at Talbal, 21 miles from Telegraph Creek. The current here is very swift but the stream is shallow and construction would be greatly facilitated by the solid gravel banks and the fact that by going a short distance down an island is found in mid-stream which could be well utilised. To bridge at the regular crossing of the trail would not however involve any difficulty, and the total cost of the necessary structure at this point would not exceed \$1,000 or \$1,500. The same argument as to the advantage of getting out the timber for the bridge during the winter months applies with equal force, while by so doing it would be possible to complete the work in the spring before the demand came.

The second bridge referred to is required at the Nialine River, a somewhat wider stream than the Talbal, but like that creek presenting no formidable obstacles. It too is swift but shallow and the banks are firm and reliable. Much of the marsh can be avoided by a slight divergence of the trail which at the same time would not necessitate any material sacrifice of distance. There are two stretches which could be considerably reduced without making the road any harder for men or animals.

The country traversed by this trail could scarcely be better than it is, open as a rule without any formidable hills and producing plenty of grazing all the way along. Packing can be continued from the 20th of May until the 15th October, the animals foraging for themselves, although it is better to supplement the grasses on the first and last trips of the season with a few pounds daily of carried feed. No mining to amount to anything is as yet being done along the trail, but colors can be found anywhere and the various tributaries of the Talbal branch give really promising indications.

When I left Telegraph Creek it was a populous and busy little place and from it camps strung out for miles along the trail. The majority of the pilgrims will winter where they are, or else sled it over to Teslin lake during the snow season and put in their time prospecting until the lake and rivers clear of their ice.

Of course it is desirable to keep to the river as long as possible and shorten proportionately the packing over the trail. At present the chief obstacle in the river is the riffle above Glenora, where, at extreme low water, only the very lightest draught boats can now ascend, and then only by lining up. There does not appear to be much required and probably \$1,000 expended in dynamite and intelligently applied would clear the course. This being done there would be free navigation to Telegraph Creek at all stages of water.

ASHCROFT ROUTE.

In the early sixties there was a project on foot to run a telegraph line

from the western states through British Columbia to Alaska and so to Siberia, known as the overland or Collin's line. While the necessary surveys were being made and trails opened up Cyrus W. Field's cable was successfully laid and the scheme was abandoned.

A trail for this purpose was cleared from through Ashcroft on the main line of the C.P.R.—W—Teslin Lake—and this is claimed to be a perfectly practicable route by which to reach the Klondyke. The line was built up the Fraser River to Quesnelle Canal, then to Hazelton, Skeena River, Telegraph Creek and to Stikine River. It was 120 feet wide through timber clear to Telegraph Creek, beyond Hazelton to Fort Stager; this was as far as completed. The distance to where the C.P.R. is constructing a road to join Teslin Lake is 440 miles. Hundreds of miners went to Cassiar by this route twenty years ago and packed animals over this trail with ease and comfort. Herds of cattle were driven in and splendid feed can be obtained from May to late in the fall along this route.

Mr. S. T. Eichelberger, who has been out in the interests of Marcus Daley, James Hamilton, and J. F. Karby, of Anaconda, Montana, looking out a practical route for a large party of prospectors which the above named gentlemen intend sending into the Peace River country early next season, came down the Cariboo road to Ashcroft, having left his outfit, horses, etc., at Quesnelle. To the Ashcroft Mining Journal Mr. Eichelberger said: "I shall strongly advocate the Ashcroft-Quesnelle route for any parties wishing to reach Peace River or the Klondyke overland. It is through a country easy to travel, good trails, good water and the best feed I ever saw, so far as I went, and from conversation I have had while in that country with those who have been clear through to Telegraph Creek I am satisfied that the route can be covered easily with pack animals from Ashcroft clear through to Teslin Lake in 40 or 50 days. I was at Quesnelle when Mr. Devereau and companion left on their trip overland in the interests of the Mining Journal, to secure a map and furnish all information of the present condition of the trail through to Teslin Lake. He stated to me that he would be able to make Telegraph Creek in 25 days from the time of leaving Quesnelle. He went with a light outfit, intending to renew his supplies at Hazelton and at Telegraph Creek. His report will be of great interest to all contemplating the trip in the early spring.

There is a telegraph line operated as far as Quesnelle, which Mr. C. S. Hosmer, general manager of the Canadian Pacific telegraph system says is easily maintained and that should the line be continued from Quesnelle to Dawson it will be put in operation by this time next year. Telegraph stations could be established every 40 miles and used in connection with the Mounted Police and their departments.

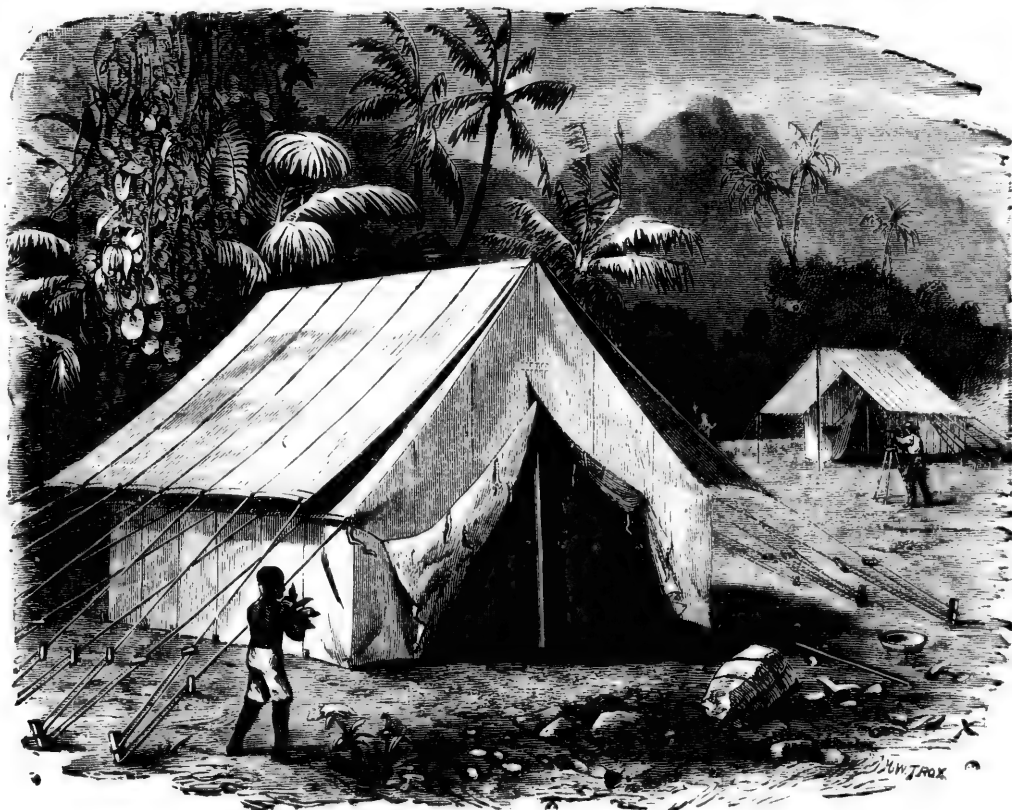
John Shields, of Ashcroft, who owns the stage line that runs between Ashcroft and Barkerville, a point 300 miles north, and carries Her Majesty's mails to the Cariboo and Cassiar districts, says: "We do not expect that our business will increase to a burdensome extent, owing to the Klondyke 'boom.' The greater portion of the people who go in by this route, which I think is the

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best entrance way to Klondyke, will go in with pack trains. Horses can be purchased at Ashcroft for \$15 apiece and the trail is good all the way to Teslin Lake. A traveller takes the famous Cariboo route to Quesnelle, 220 miles; then crosses the Fraser River by ferry and follows the telegraph trail 450 miles further north to Telegraph Creek."

DOG TRAIN ROUTE.

For the information of those desirous of making a winter start for the Yukon by dog train it may be mentioned that a dog sleigh route exists from Athabasca Landing to the Wabiscaw lakes, and thence to Fort Vermillion on the Lower Peace river. Thence to Fort Liard on the Liard river. Distance to Wabiscaw lakes from the Landing, 100 miles. Wabiscaw lakes to Trout lakes, 50 miles. Trout lakes to Vermillion, 175 miles. Fort Vermillion to Hay river, 90 miles. Hay river to Fort Laird, 135 miles. Total 525 miles. This should be made in 20 days good travelling at 30 miles a day.—Edmonton Bulletin.

HON. CLIFFORD SIFTON'S ANNOUNCEMENTS.

VICTORIA, Nov. 3.—At a meeting of the board of trade today Hon. Clifford Sifton, minister of the interior, intimated that the government would open up an all Canadian route to Yukon and that everything possible would be done to turn trade into Canadian channels, but he declined entirely to advocate a law to prevent aliens from holding claims. Several members suggested that this should be done, but the minister entirely ignored the question.

After January 1st miners will not be allowed exemption from duty on 100 pounds of their baggage. Customs offices are to be established on all routes. Arrangements will be made for a good mail service and the establishment of banks and the transportation of gold.

The question of compelling miners to take out licenses before going into the country, and the establishment of a mint will receive further consideration.

The regulations reserving alternate claims will be abrogated and claims will be reserved en bloc, but he said it would be the policy of the government to collect a royalty on the output.

There is already a post at Tagish and another is being established at Bennett. Others will be near the junction of the Hobtelaniqua river and Lake Teslin, and at Chilkoot. The latter will be well equipped and manned.

The minister says while travelling through the country he was more than ever impressed with the absolute necessity of police and customs administration as well as administration mining laws being thoroughly provided for before spring opens up. Thousands of those that are camped along the lakes and

rivers will be on their way by February 1st, and every official in the country will have his hands full from the very early period of the year. The present police force would have to be supplemented when spring opens. He did not, however, anticipate any trouble, because from observations he thought the people were going in delighted, above all things, that the Canadian government intended administering the law fairly and keeping order. Mr. Sifton went on to say that from careful study of reliable information he was convinced there was an immense amount of gold bearing territory in the country, not all as rich as the Bonanza and Eldorado Creeks, but which would pay well for the working if the cost of living were cheapened and means of transportation improved.

The government would try as soon as possible to open up the Canadian route. Parties were now carefully examining the pack and cattle trail by way of Edmonton, and also from Cariboo northward to Stickeen. It was of the utmost importance to merchants and companies anxious to secure a portion of the trade of the territory that they should equip themselves properly for competition. Mining regulations might have been changed somewhat, but nothing he had heard of had shaken his opinion as to the advisability of collecting a royalty and reserving for the public benefit a portion of the mineral wealth of the country. Mr. Sifton would say nothing of the dangers of the passes he had crossed beyond that the trips were rough and unpleasant.

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